



Climate Update

Nolan Doesken
Colorado Climate Center

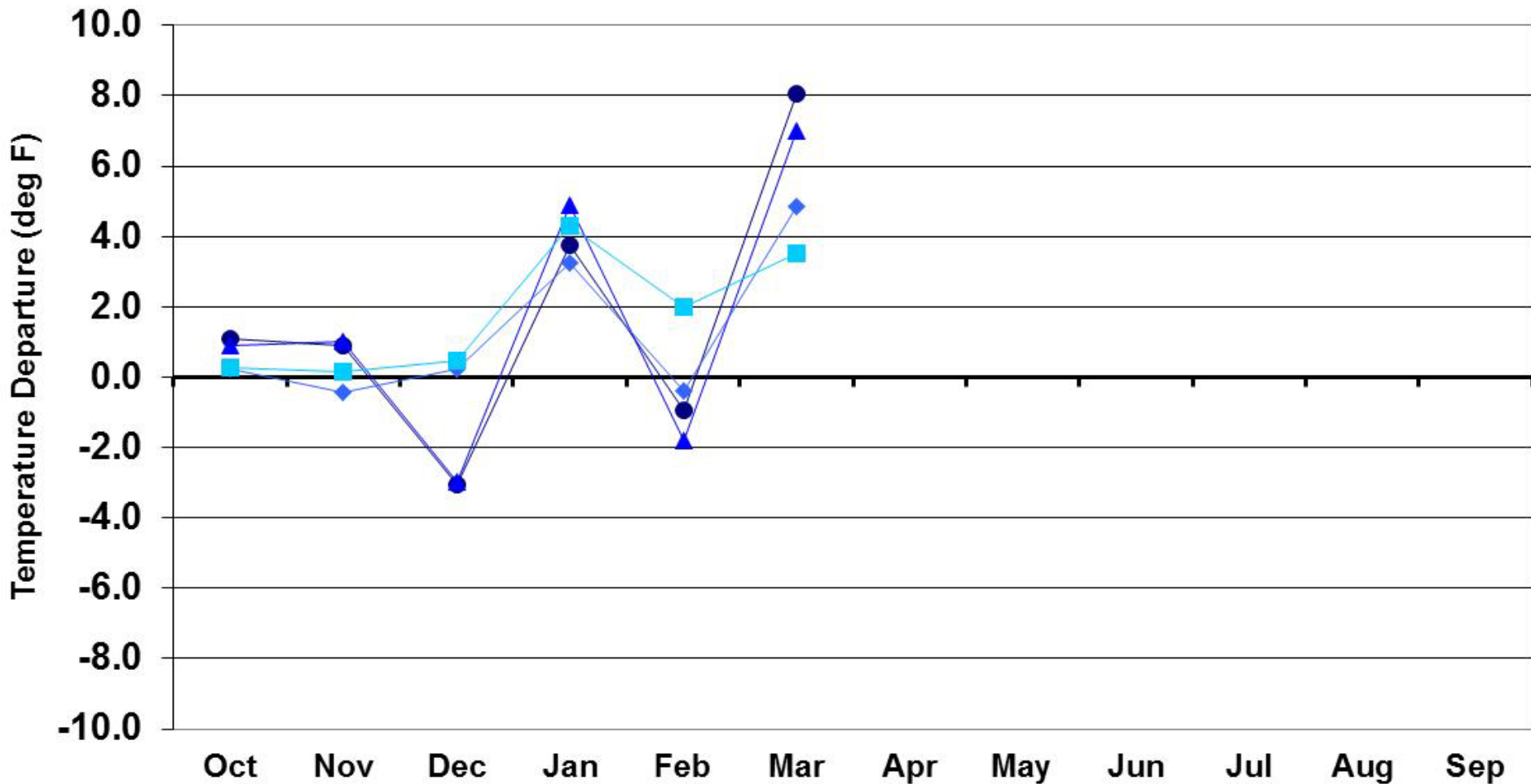
Atmospheric Science Department
Colorado State University

Presented to
Water Availability Task Force
April 18, 2012
Denver, CO

Prepared by Wendy Ryan

Water Year 2012 Temperature Departures

Water Year 2012



● Eastern Plains

▲ Foothills

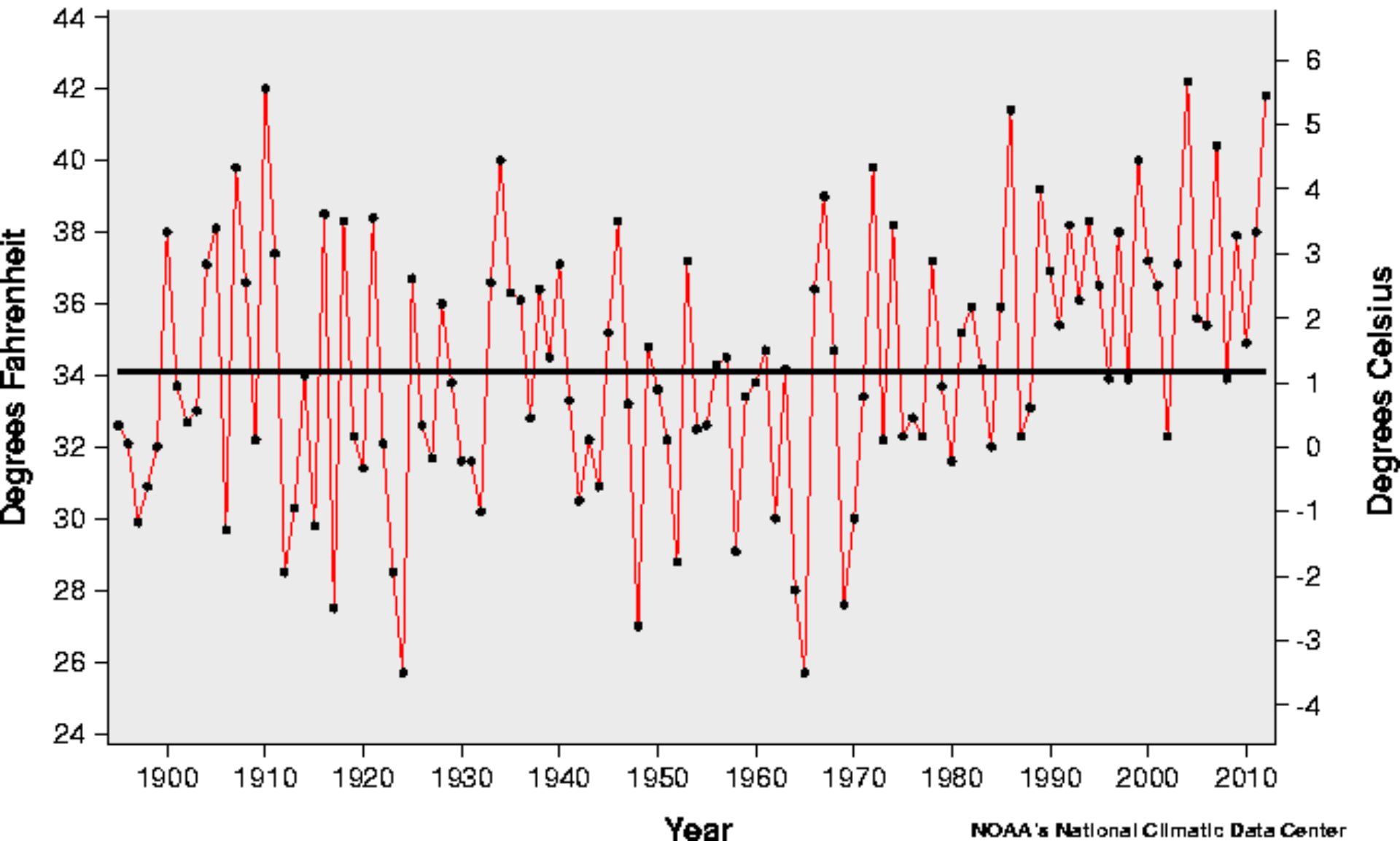
◆ Mountains

■ Western Valleys

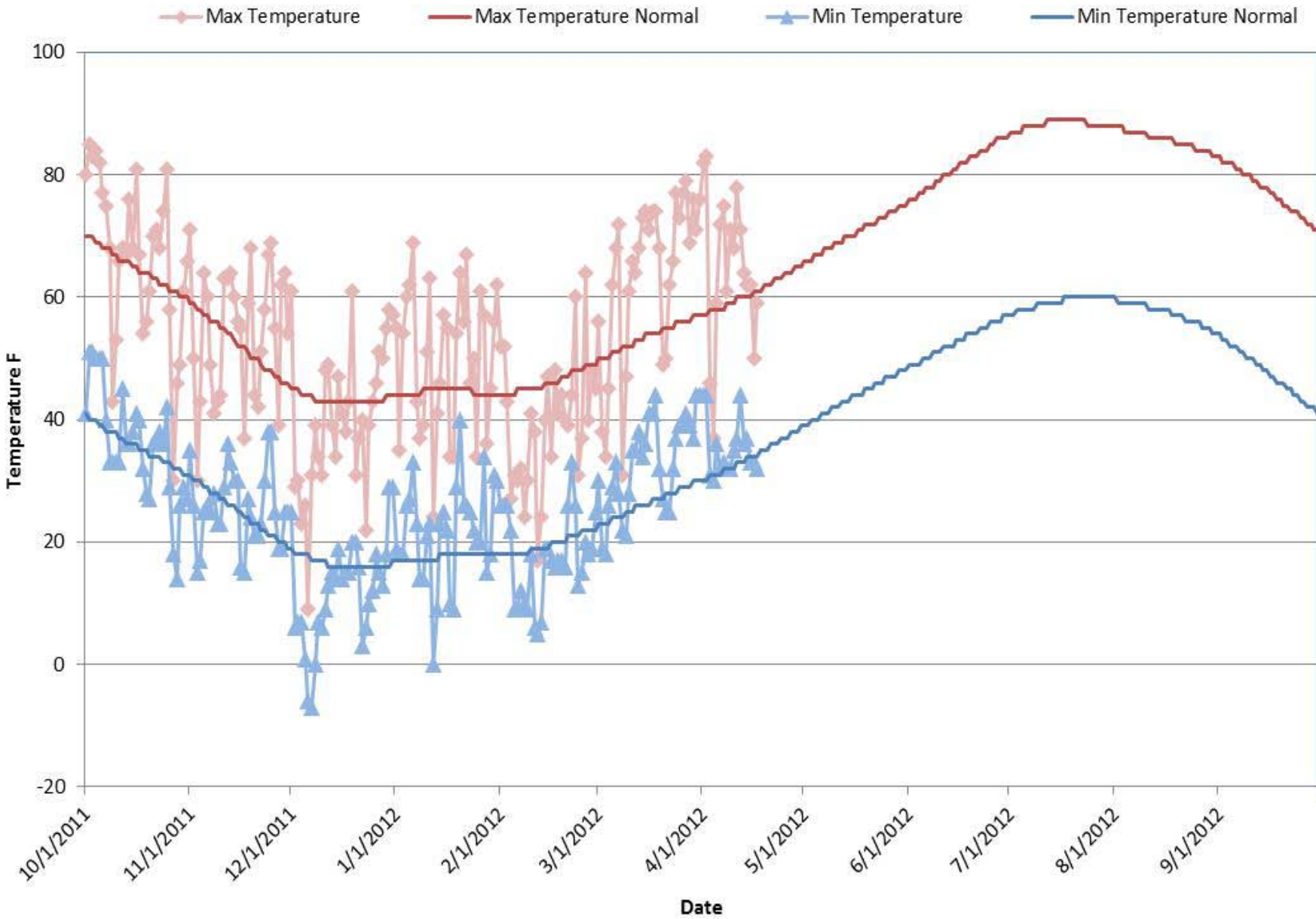
March Average Temperature History for Colorado (NCDC)

— Actual Temperature
— Average Temperature

41.8 Ranks as the 3rd warmest on record 1895-2012. (#1 = 2004, #2 = 1910)

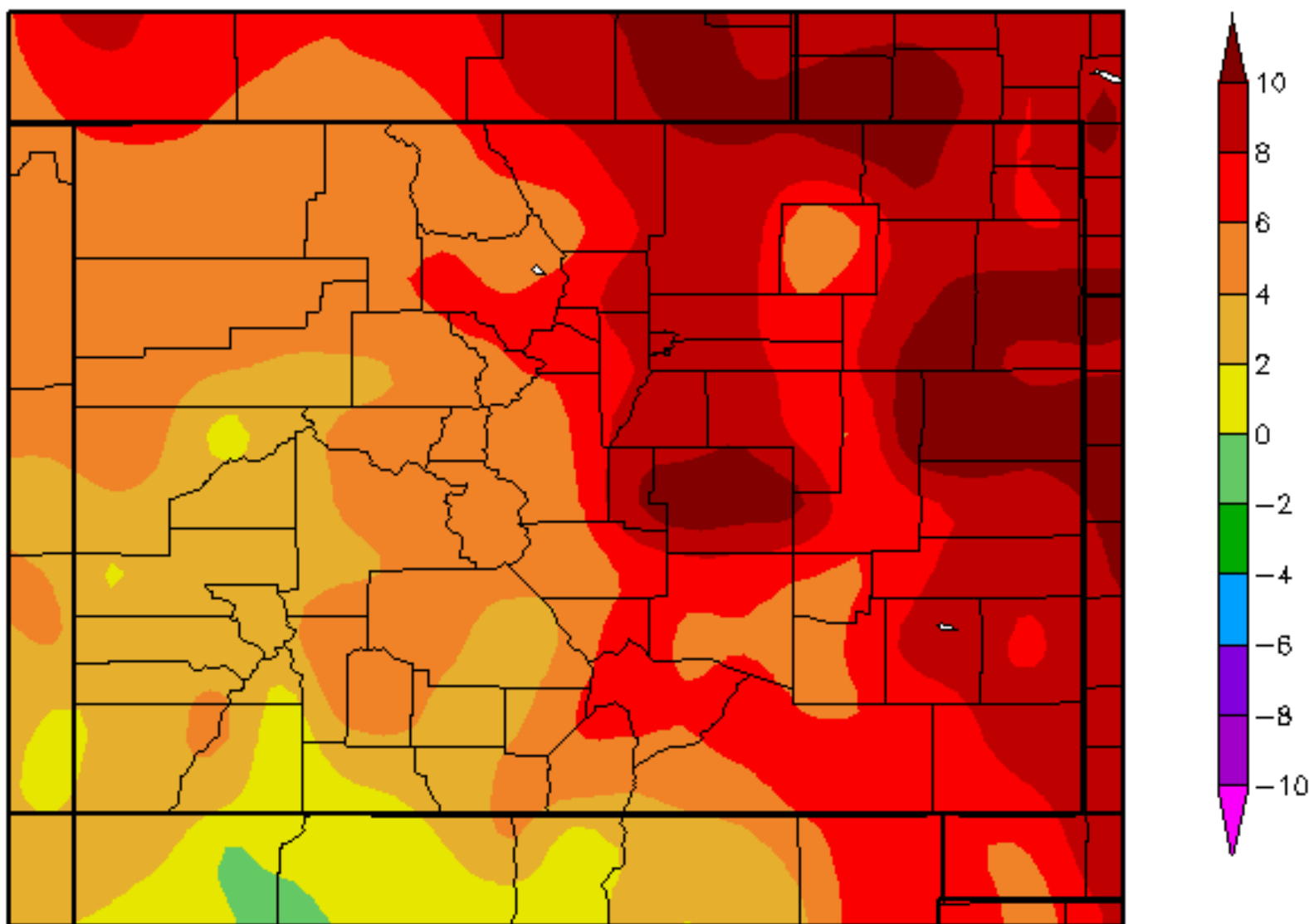


Denver Stapleton Daily Max/Min Temperatures and Normals



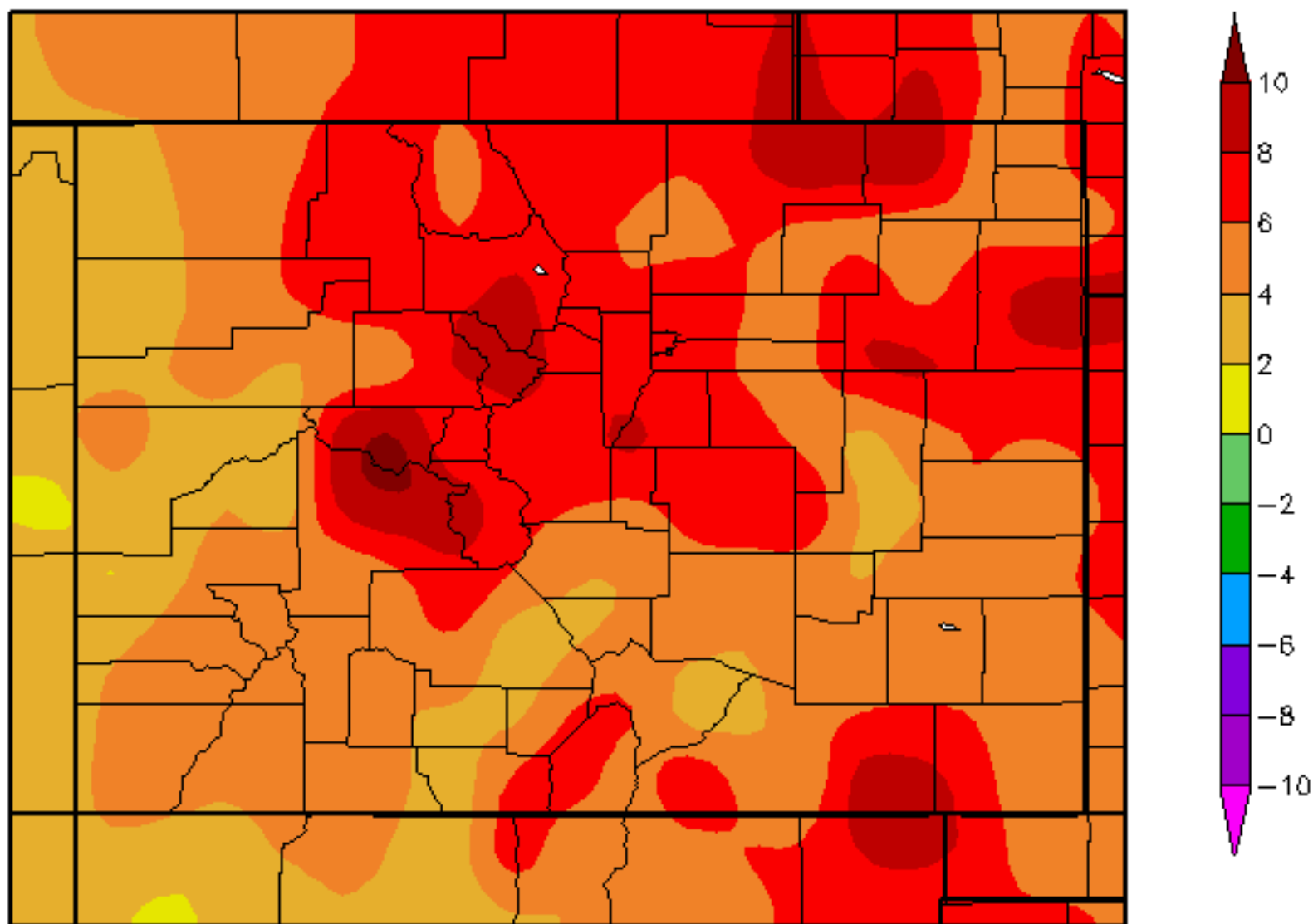
Departure from Normal Temperature (F)

3/1/2012 - 3/31/2012

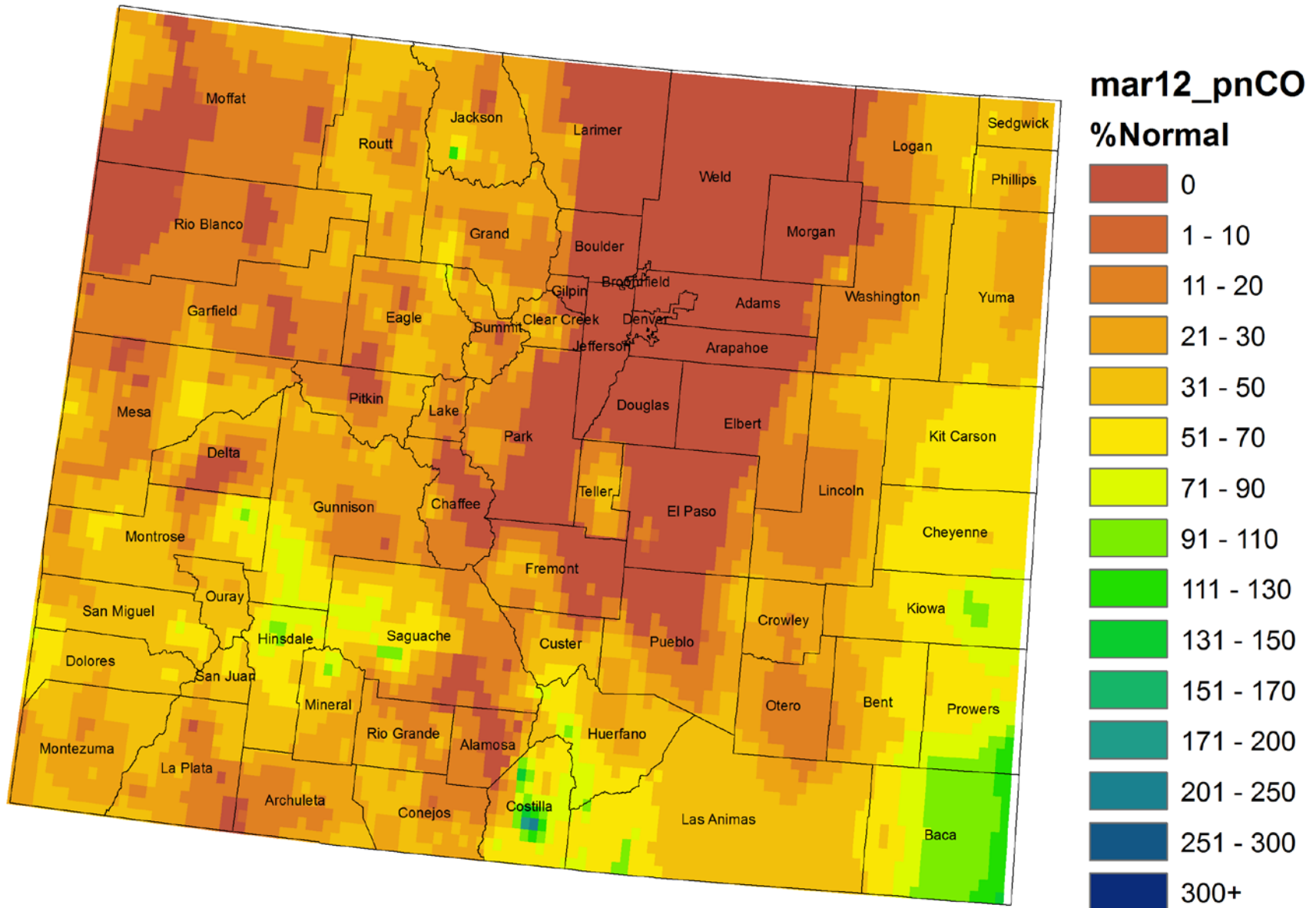


Departure from Normal Temperature (F)

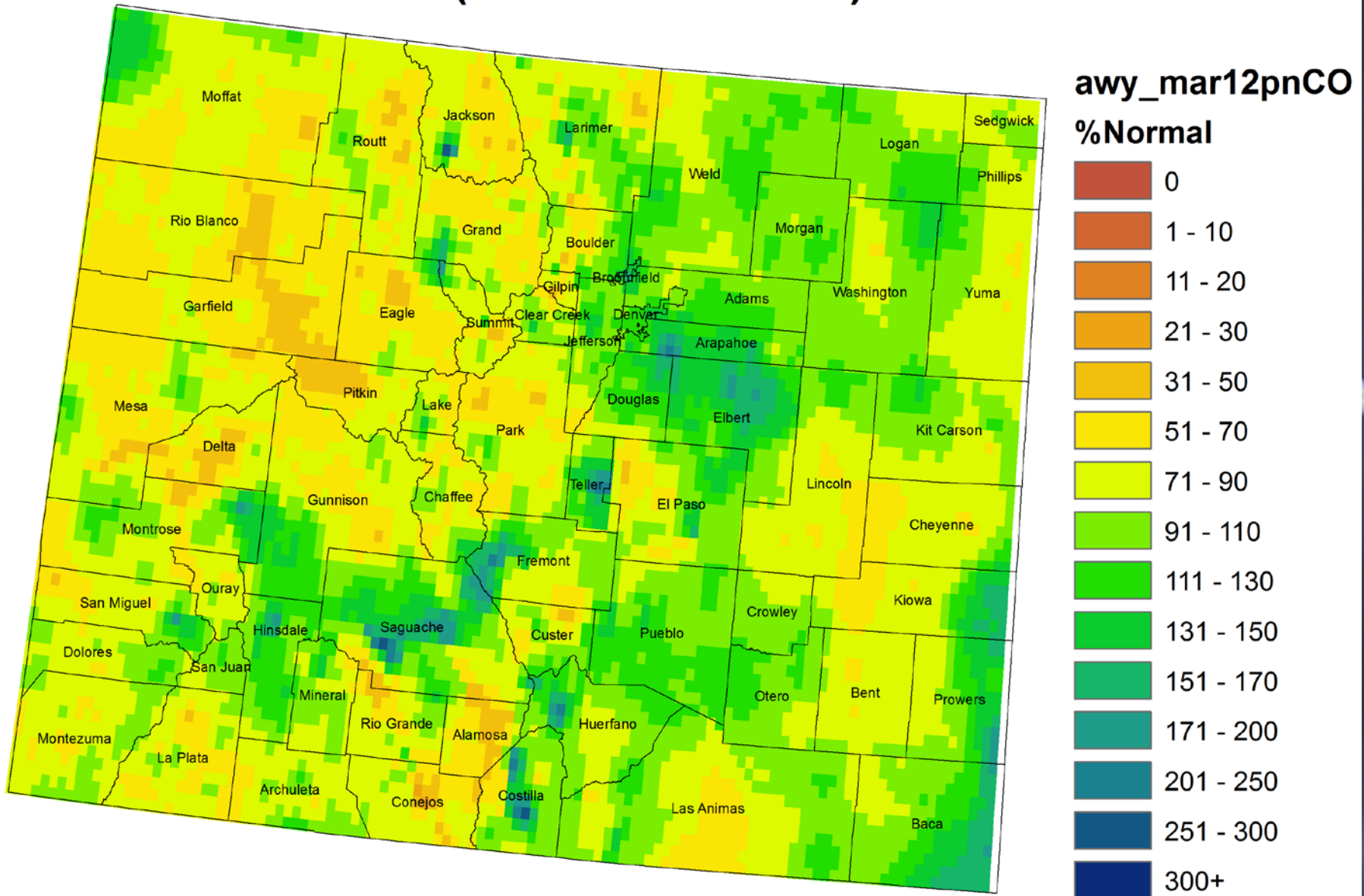
4/1/2012 - 4/15/2012



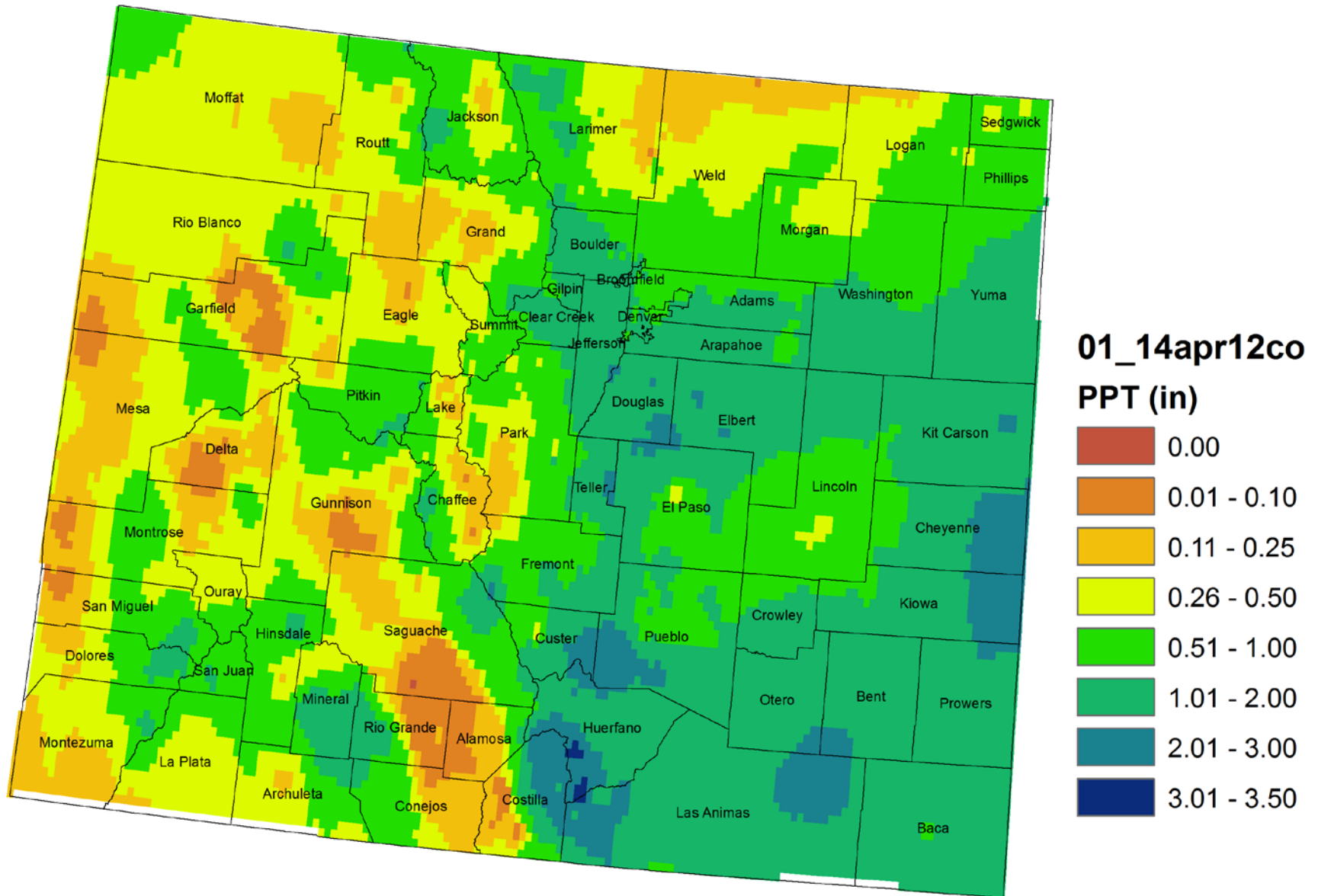
Colorado March 2012 Precipitation as Percentage of Normal



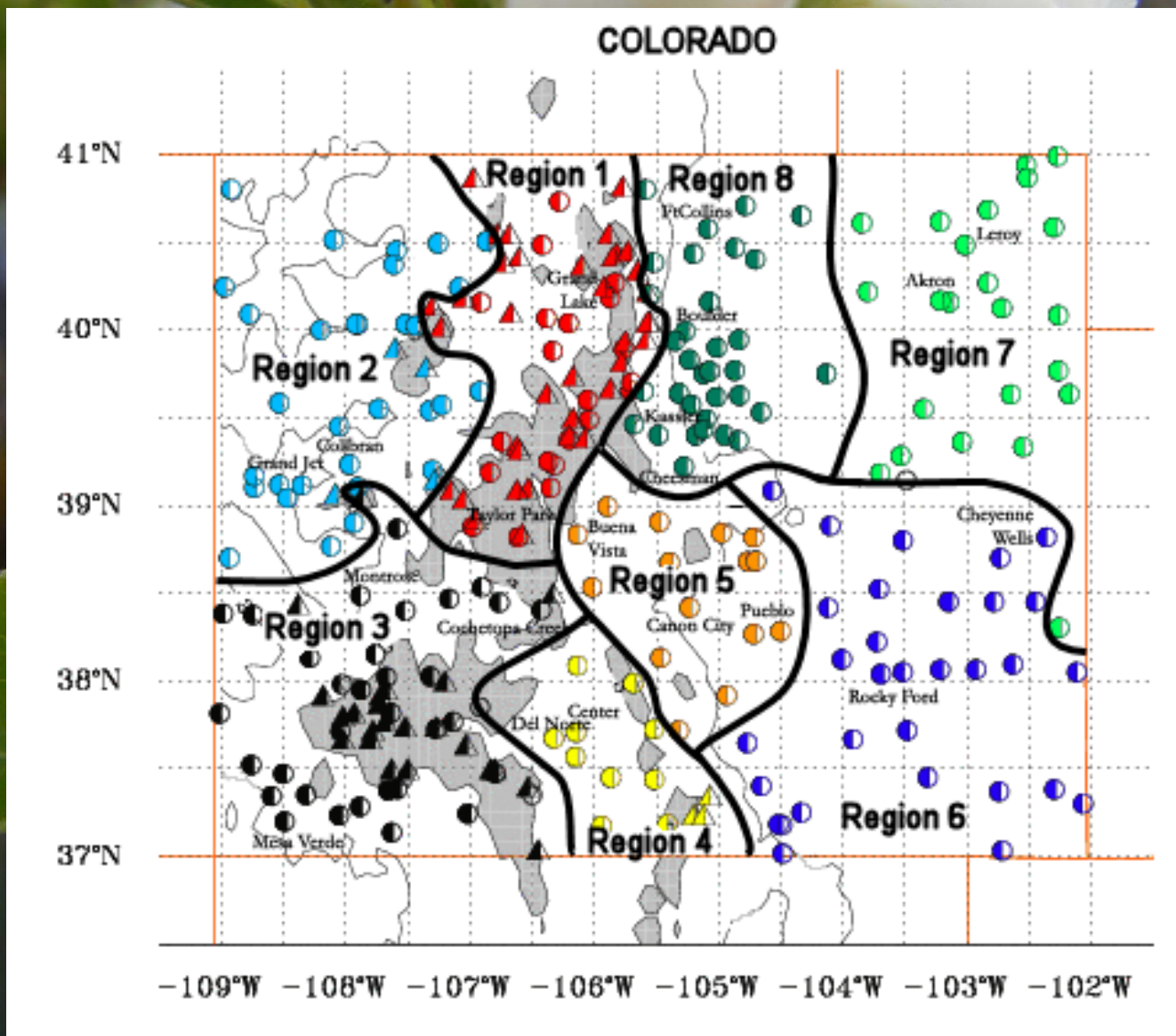
Water Year 2012 Precipitation as Percentage of Normal (Oct 11 - March 12)



Colorado Precipitation (in) April 1 - 14, 2012

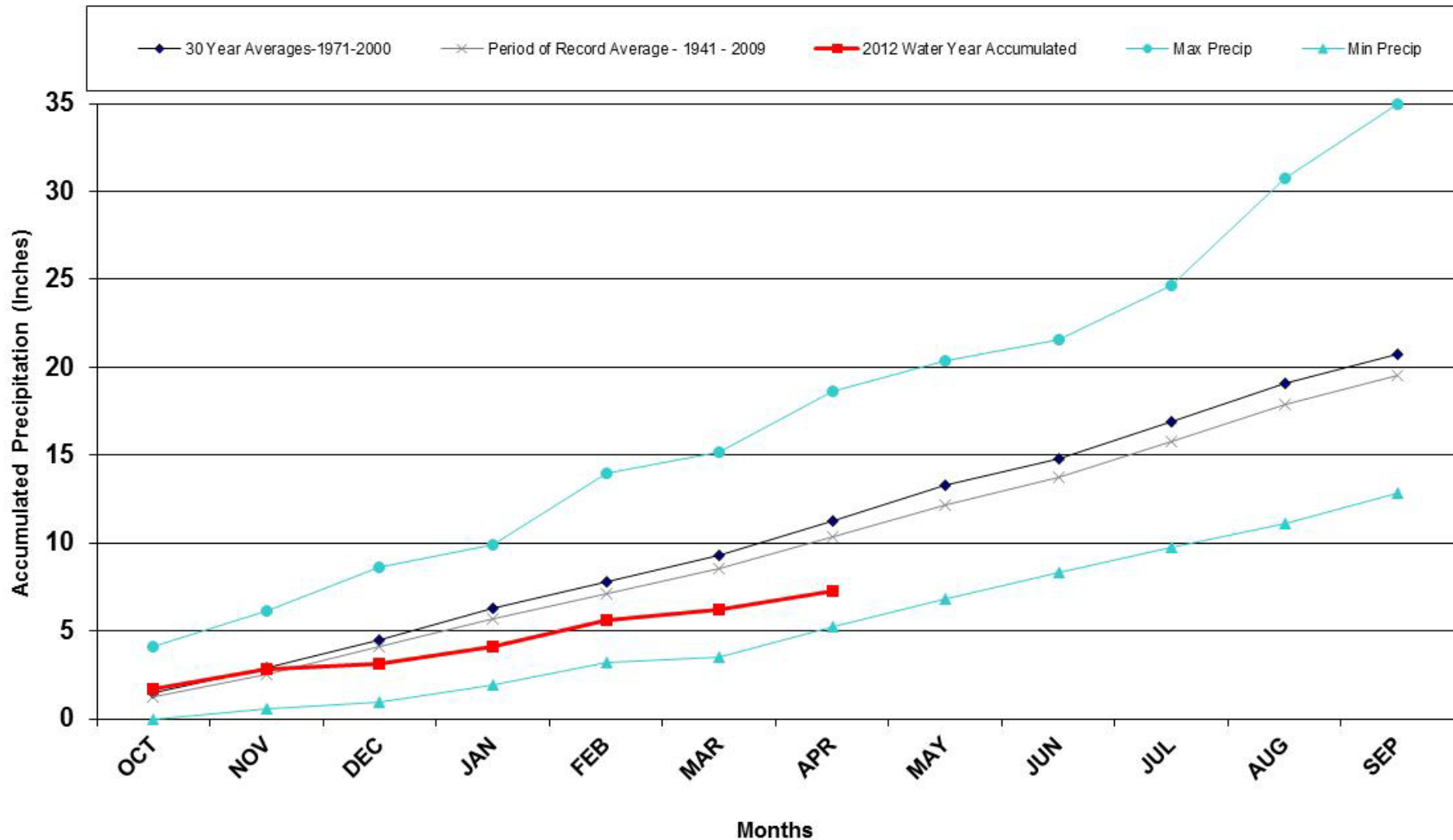


Climate divisions defined by Dr. Klaus Wolter of NOAA's Climate Diagnostic Center in Boulder, CO



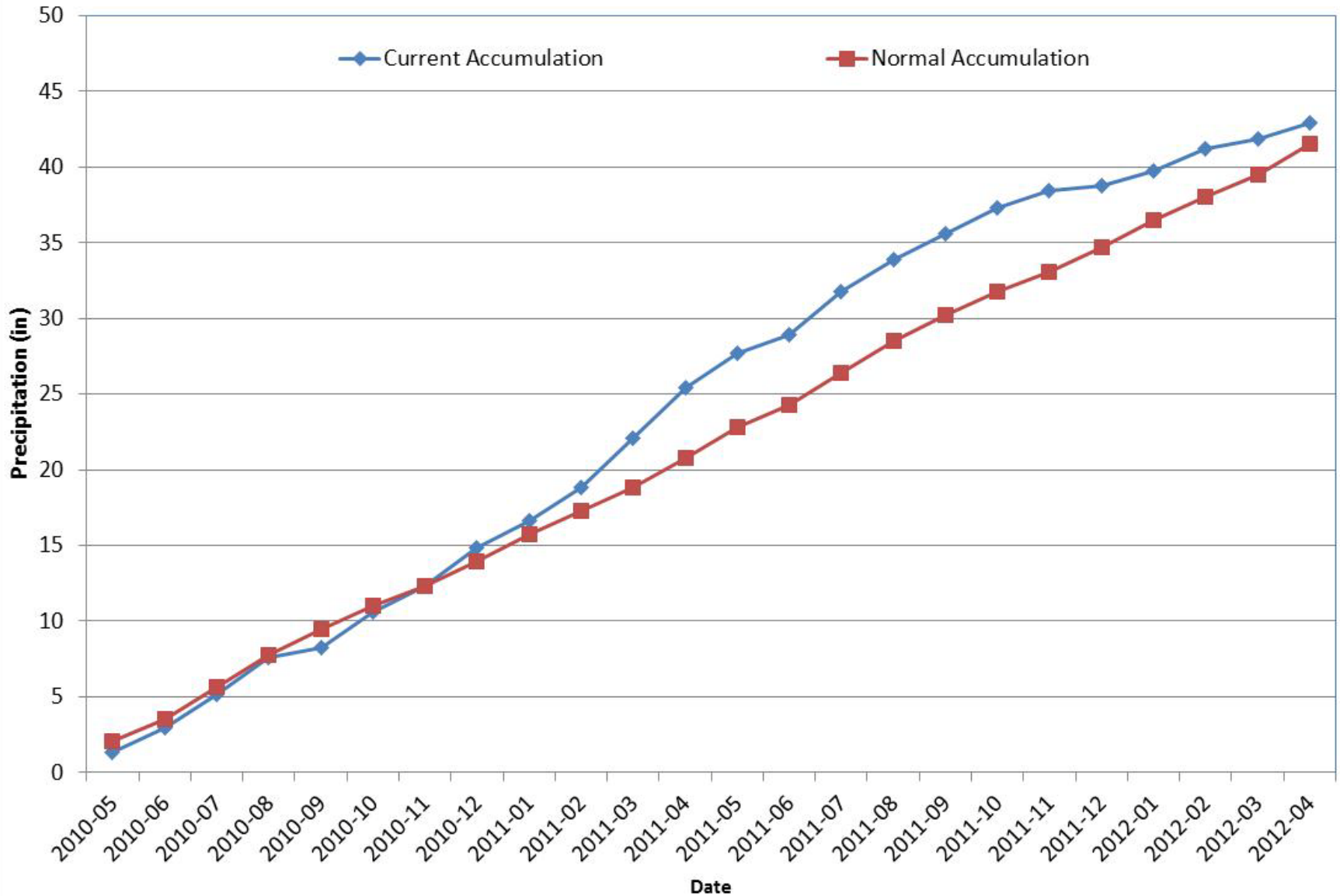
Division 1 – Grand Lake 1NW

Grand Lake 1 NW 2012 Water Year



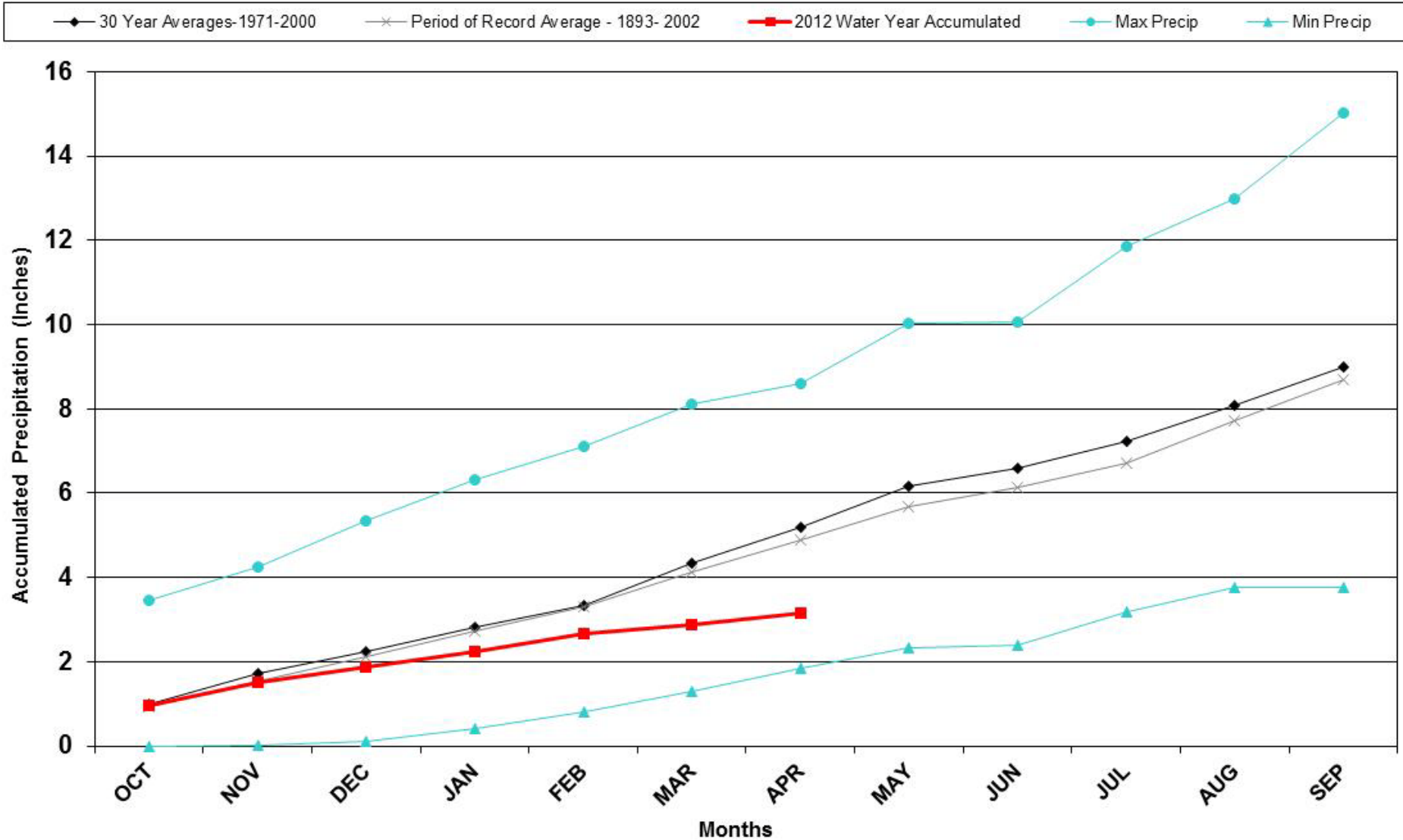
Division 1 – Grand Lake 1NW

Grand Lake 1NW 24 Month Precipitation Accumulation



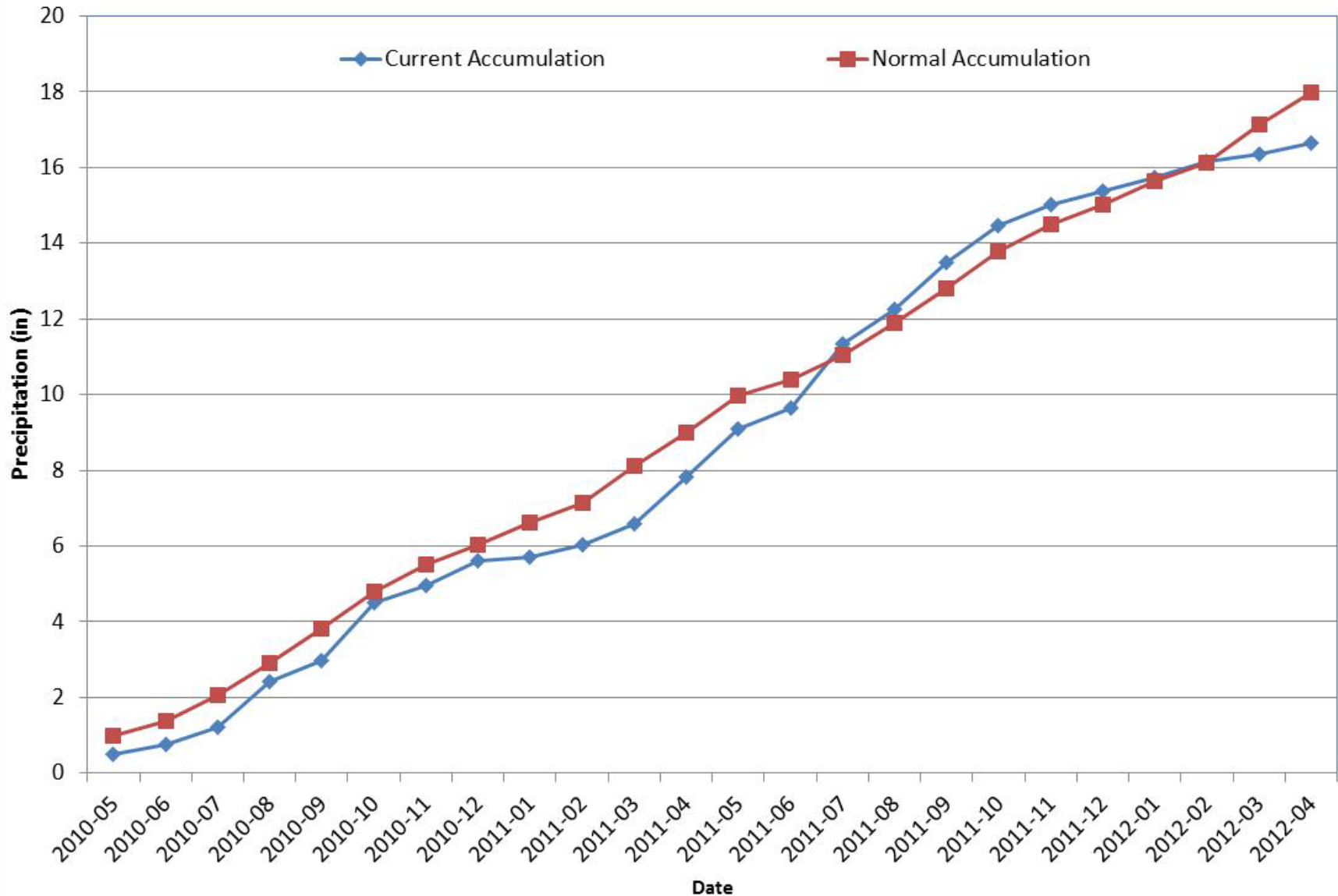
Division 2 – Grand Junction

Grand Junction WSFO 2012 Water Year



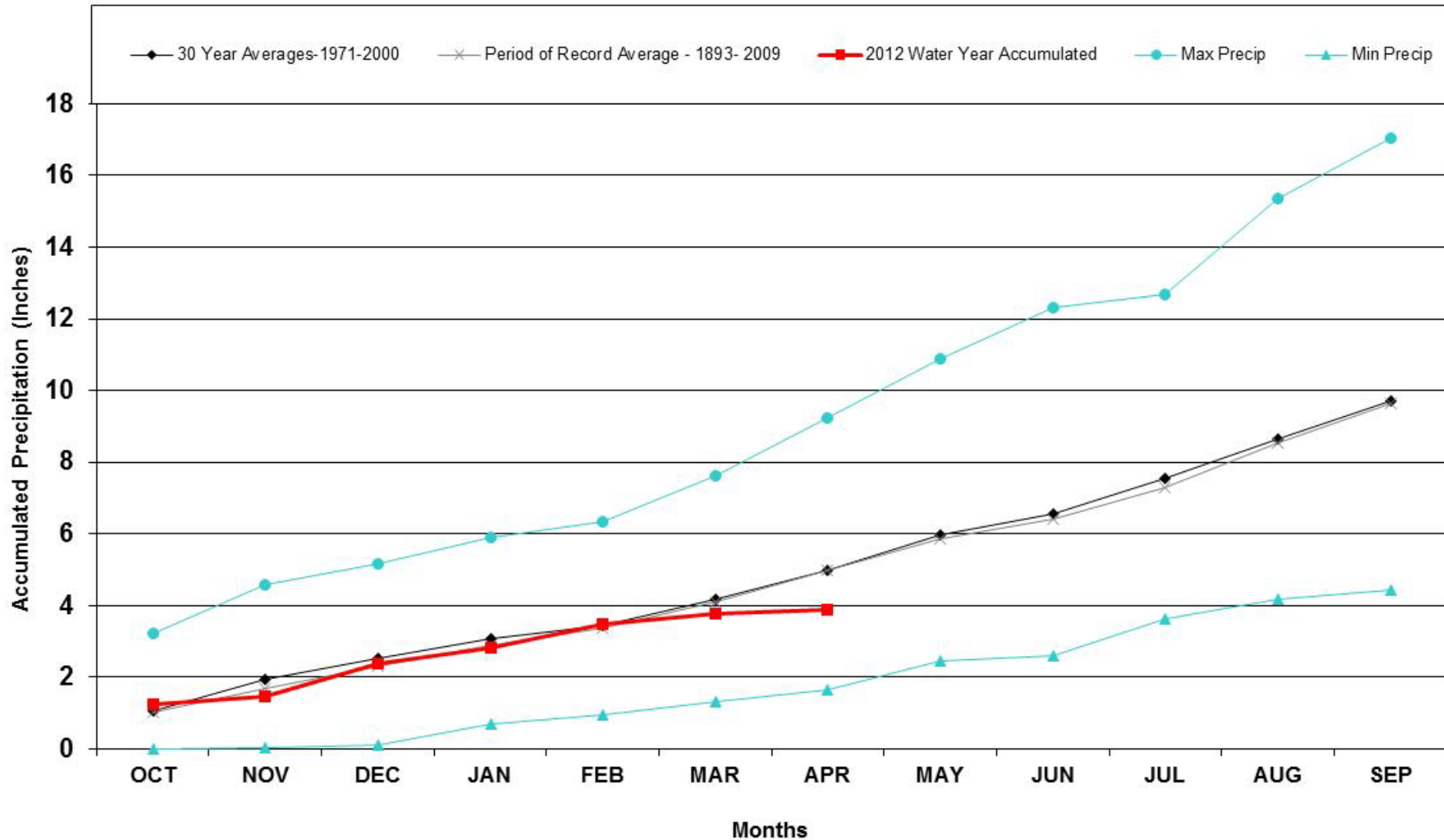
Division 2 – Grand Junction

Grand Junction 24 Month Precipitation Accumulation



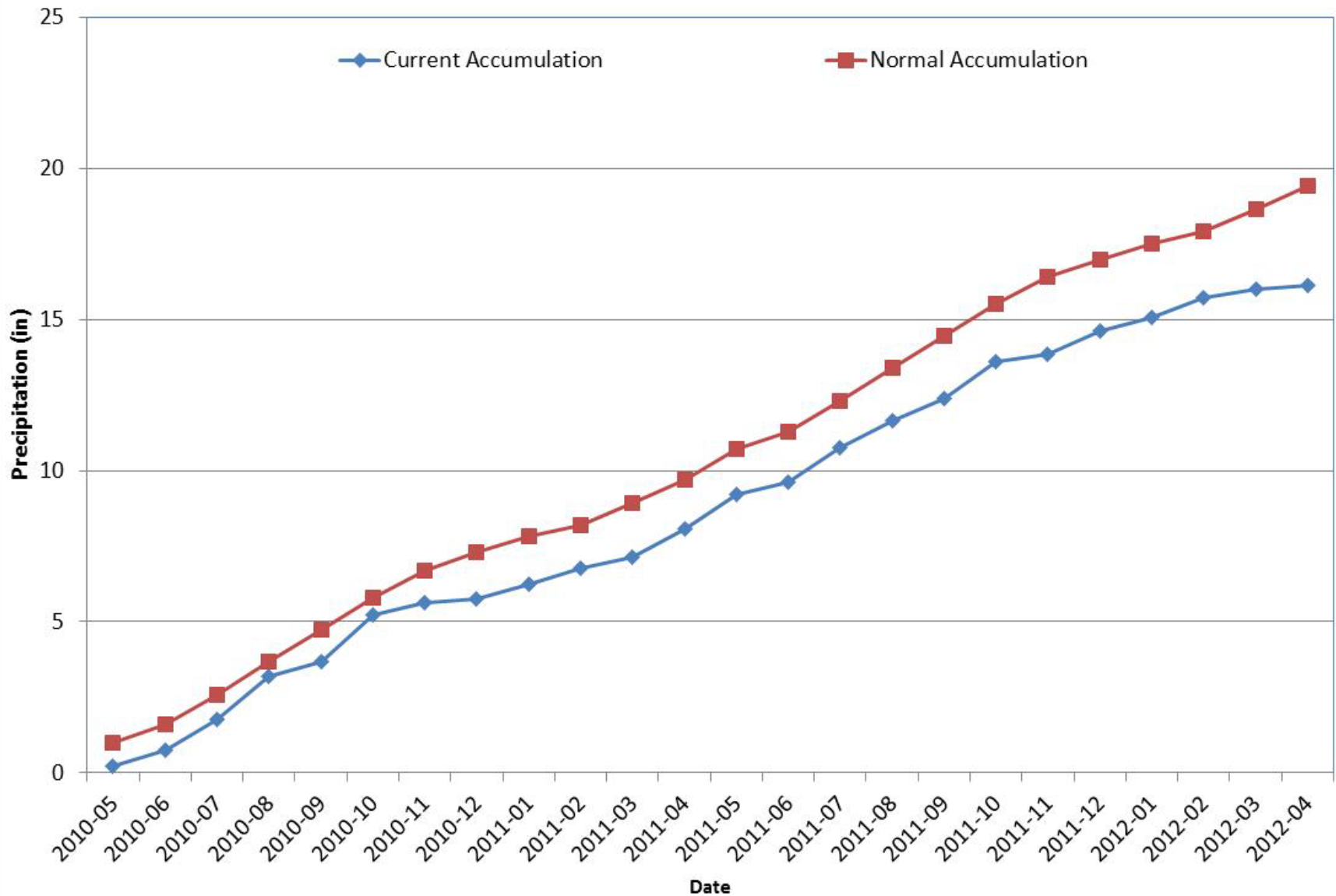
Division 3 – Montrose

Montrose #2 2012 Water Year



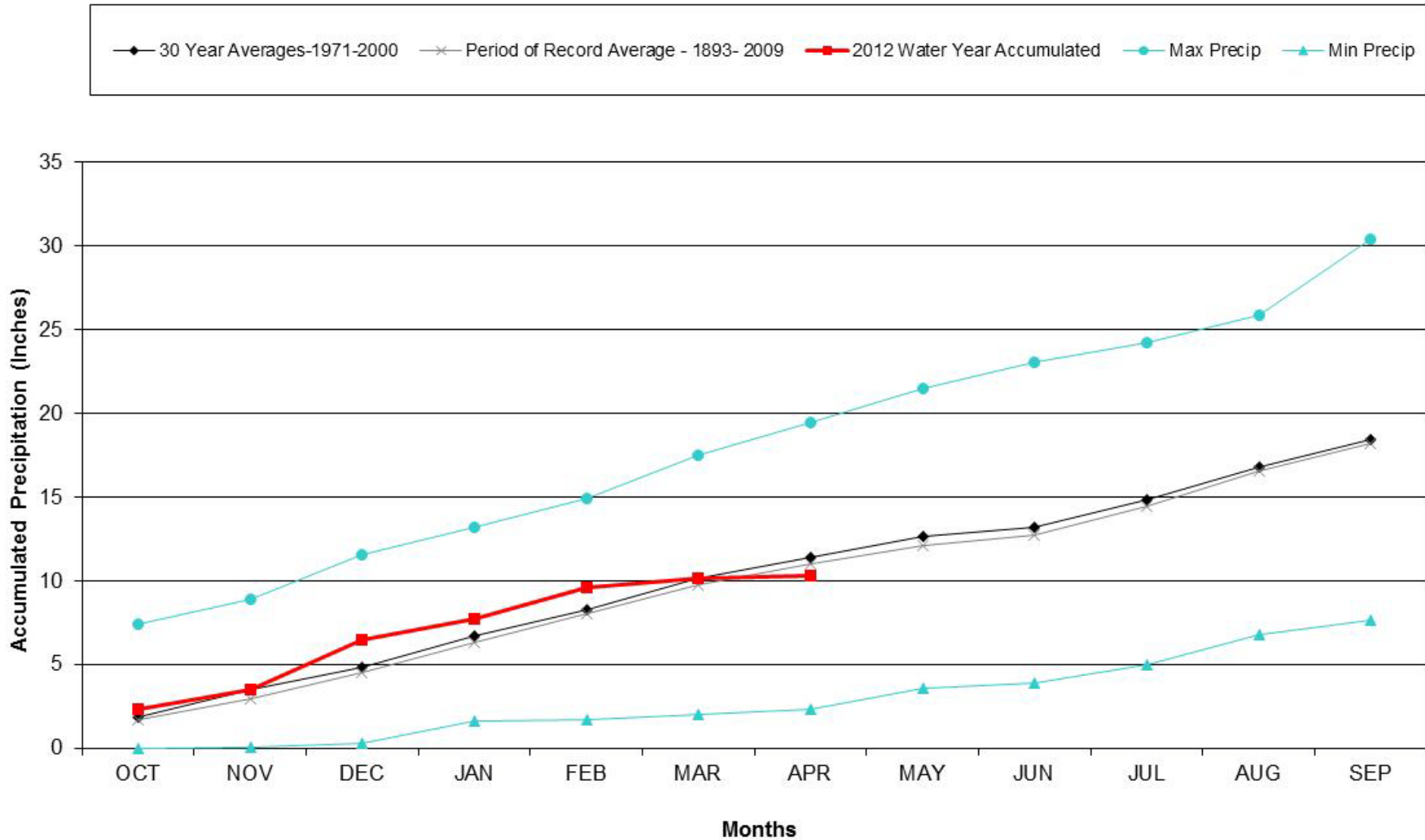
Division 3 – Montrose

Montrose #2 24 Month Precipitation Accumulation



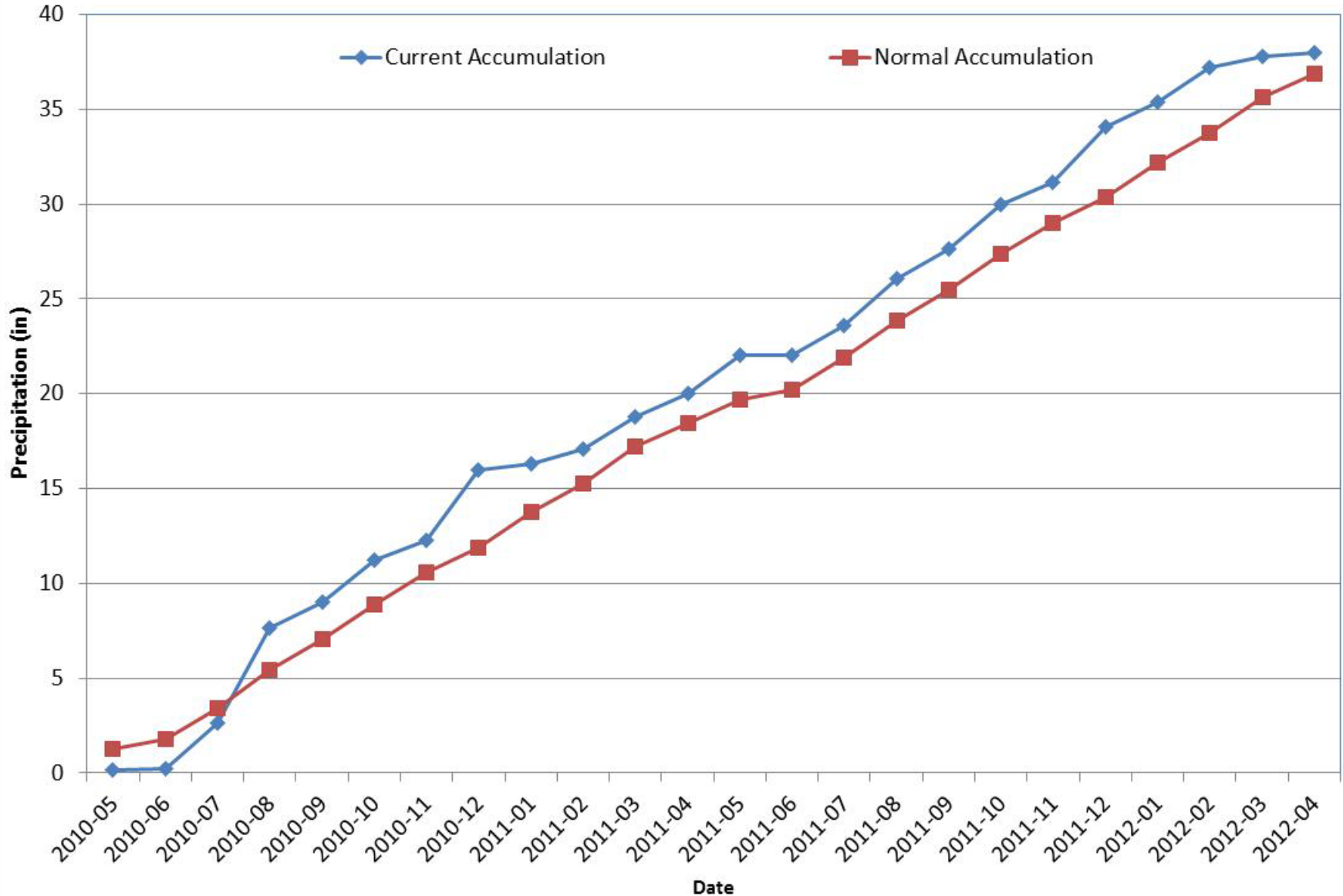
Division 3 – Mesa Verde NP

Mesa Verde NP 2012 Water Year



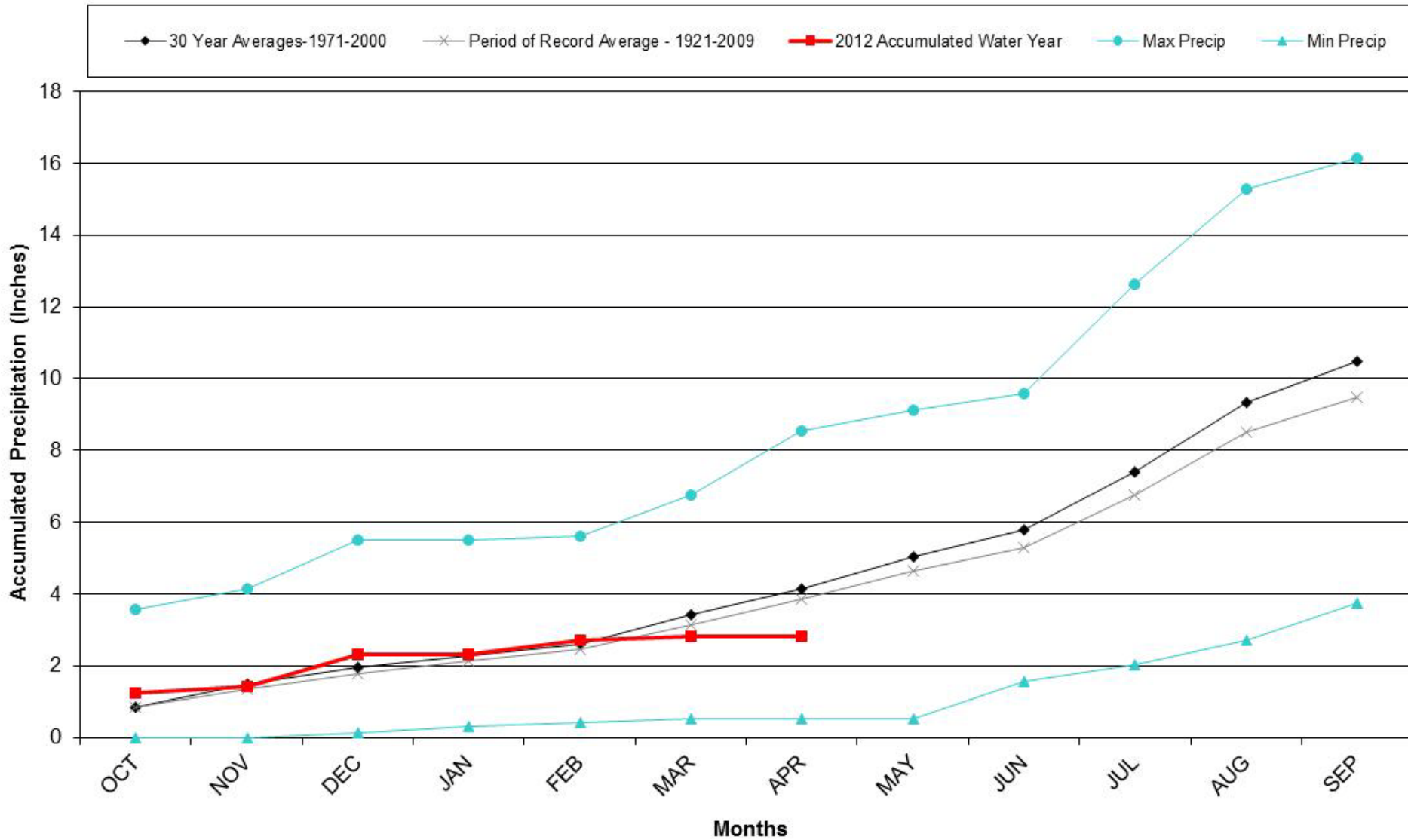
Division 3 – Mesa Verde NP

Mesa Verde NP 24 Month Precipitation Accumulation



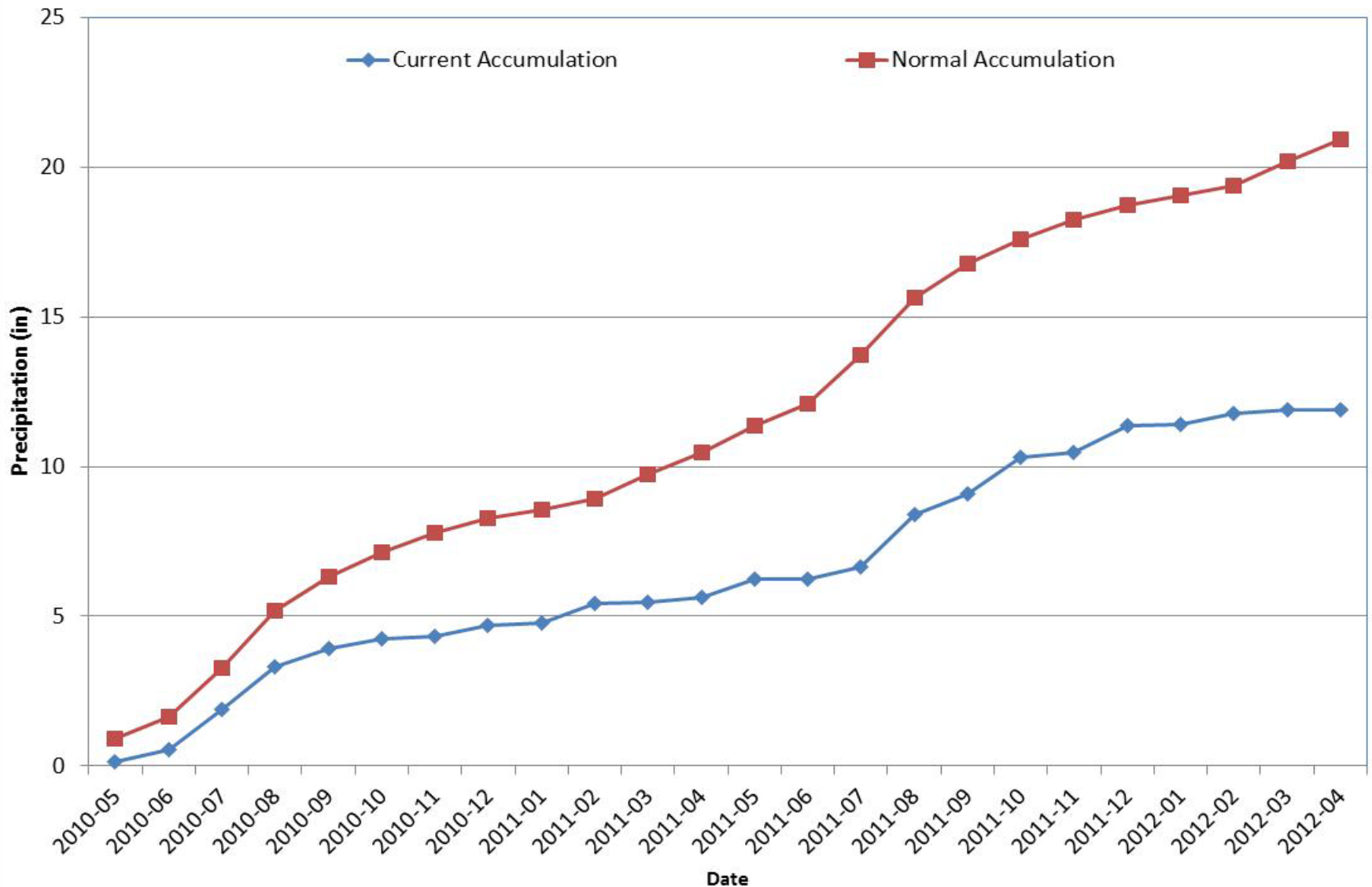
Division 4 – Del Norte

Del Norte 2012 Water Year



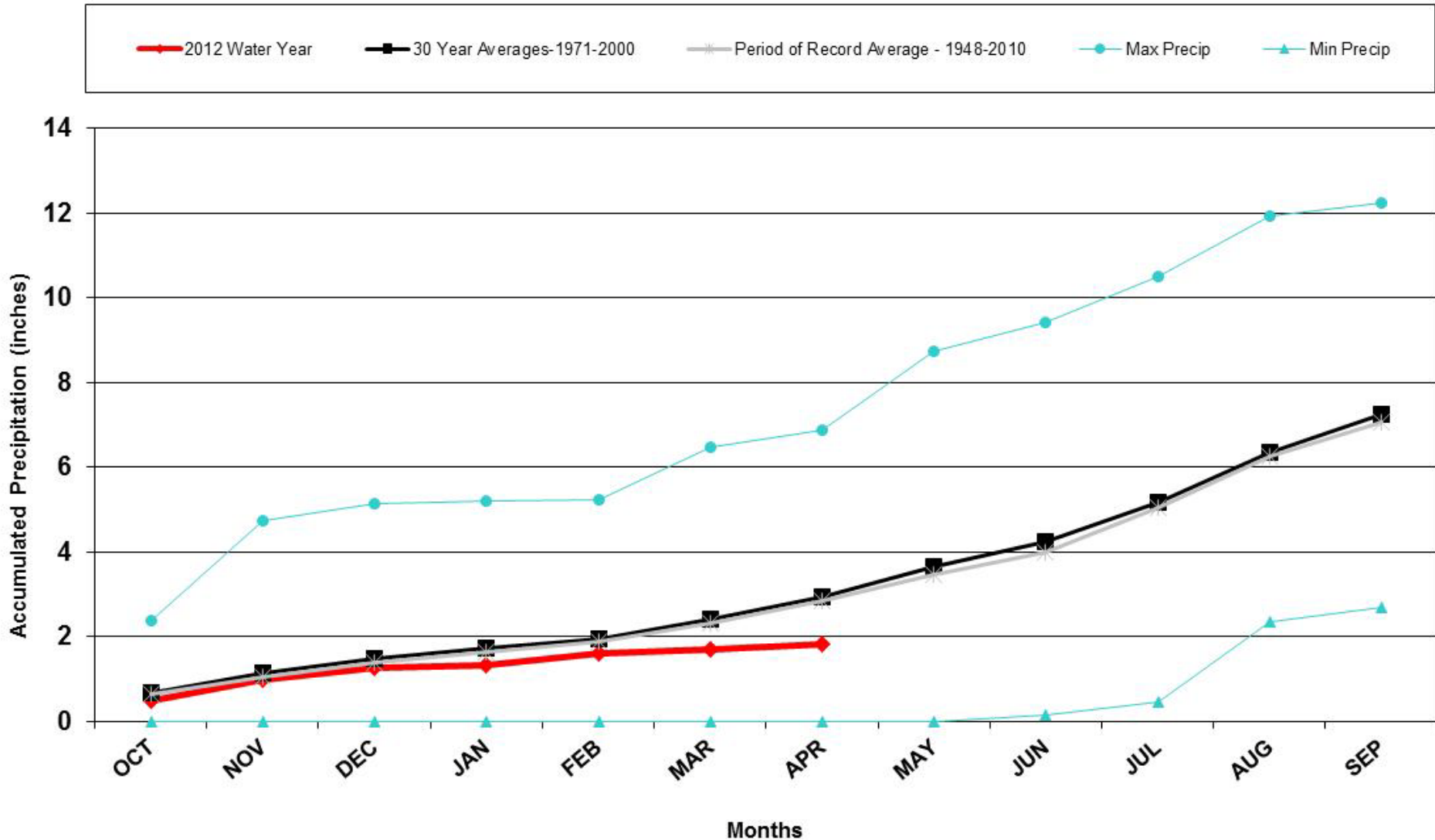
Division 4 – Del Norte

Del Norte
24 Month Precipitation Accumulation



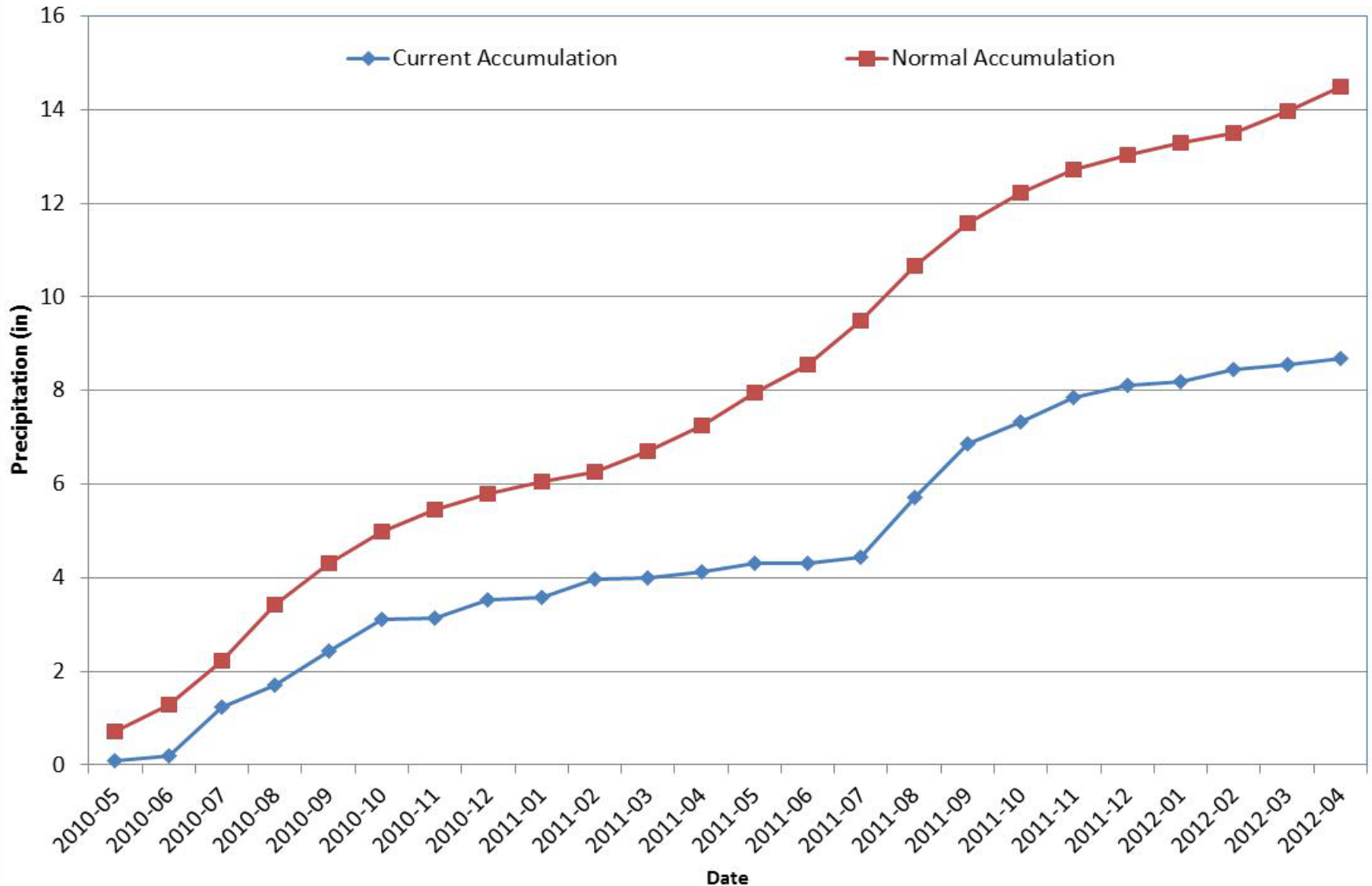
Division 4 – Alamosa

Alamosa WSO 2012 Water Year



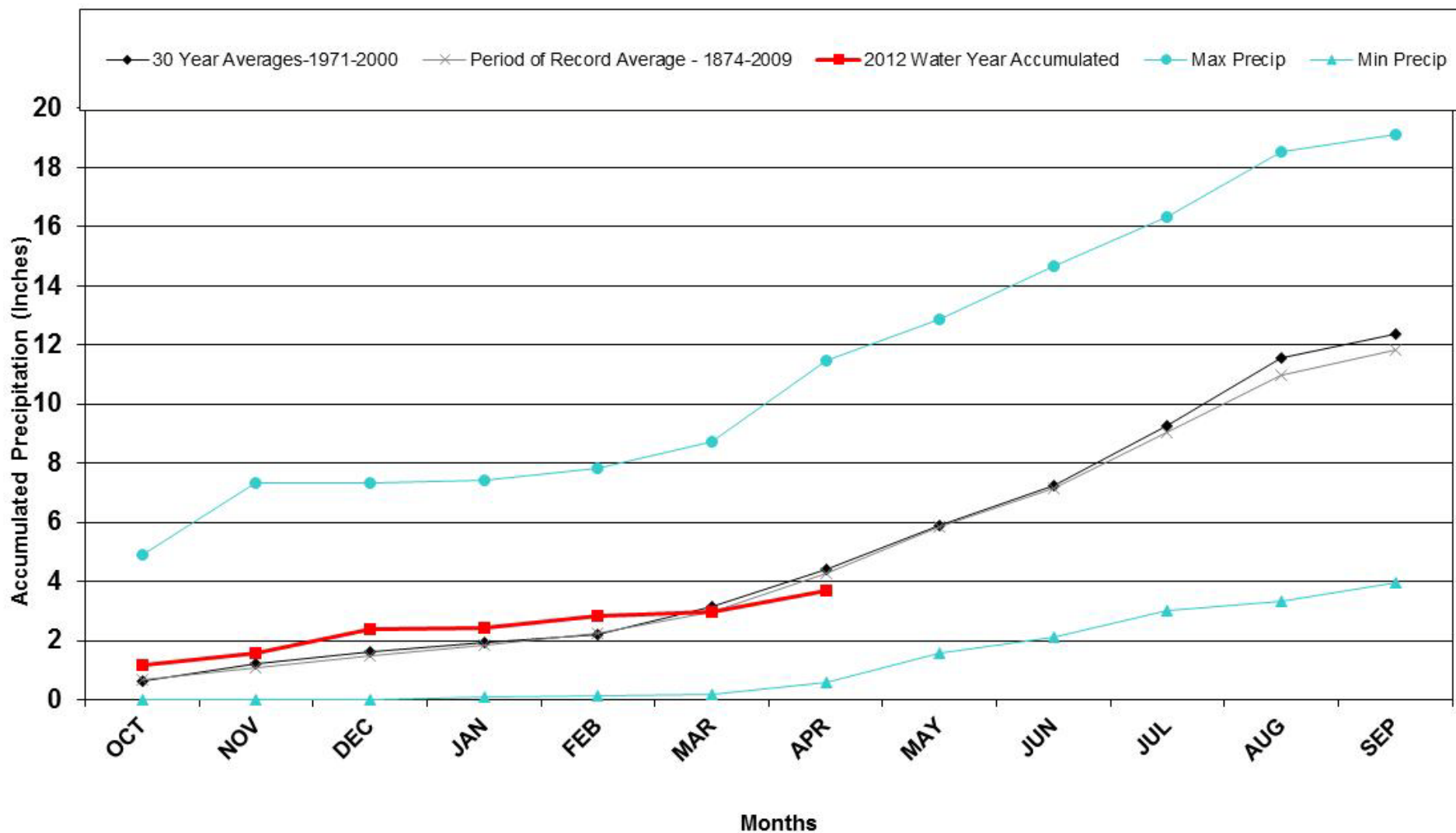
Division 4 – Alamosa

Alamosa WSO 24 Month Precipitation Accumulation



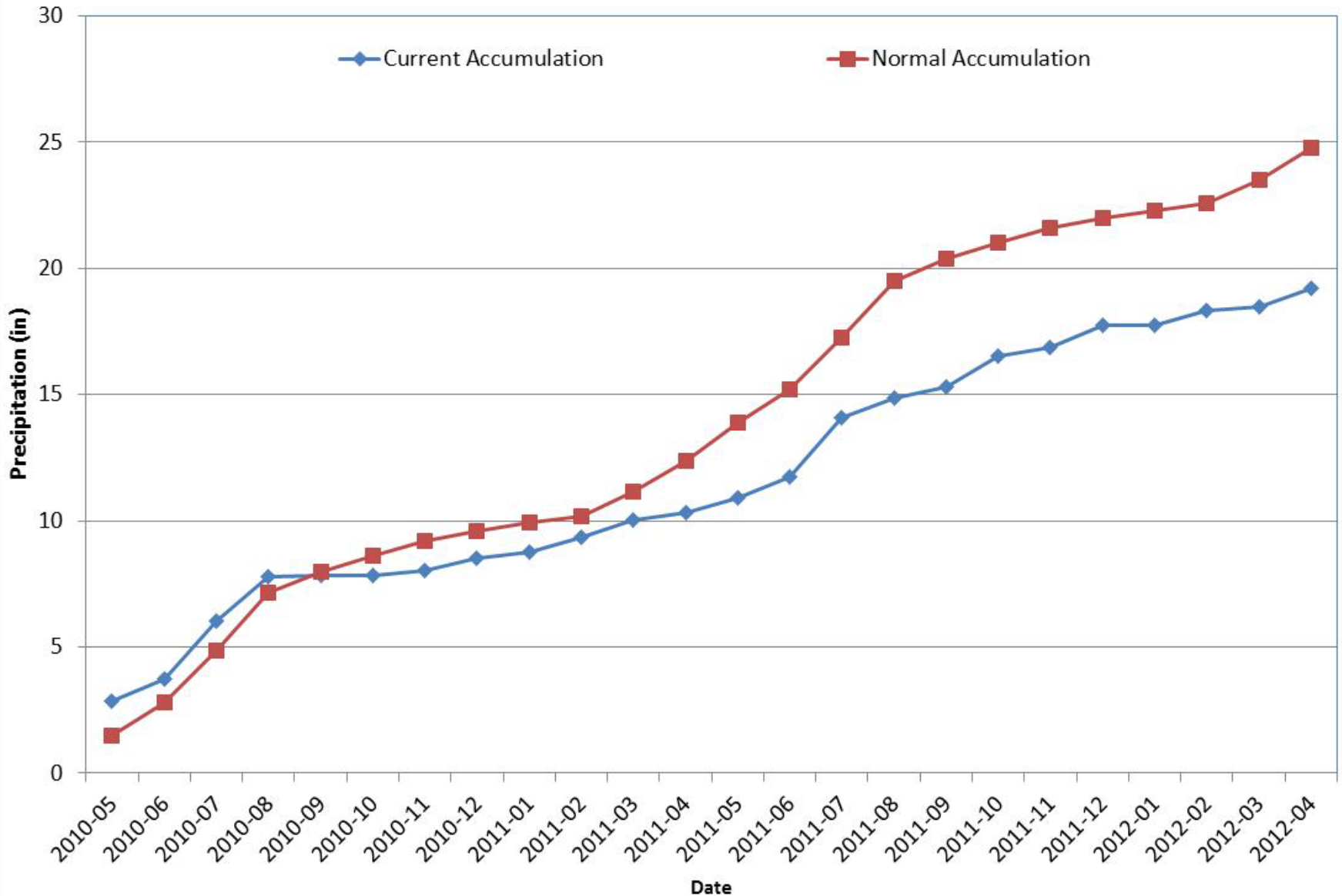
Division 5 – Pueblo

Pueblo WSO 2012 Water Year



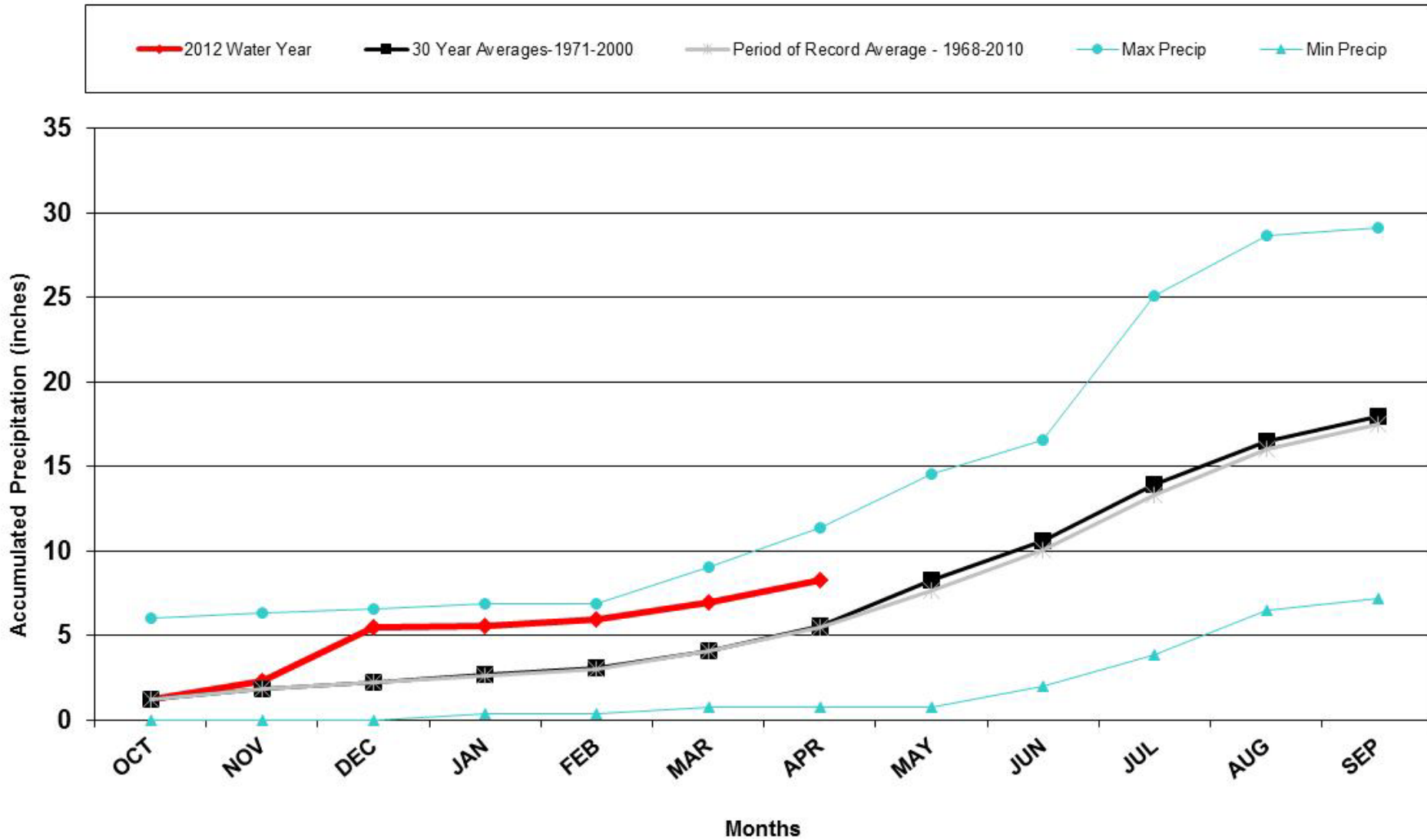
Division 5 – Pueblo

Pueblo Memorial AP 24 Month Precipitation Accumulation



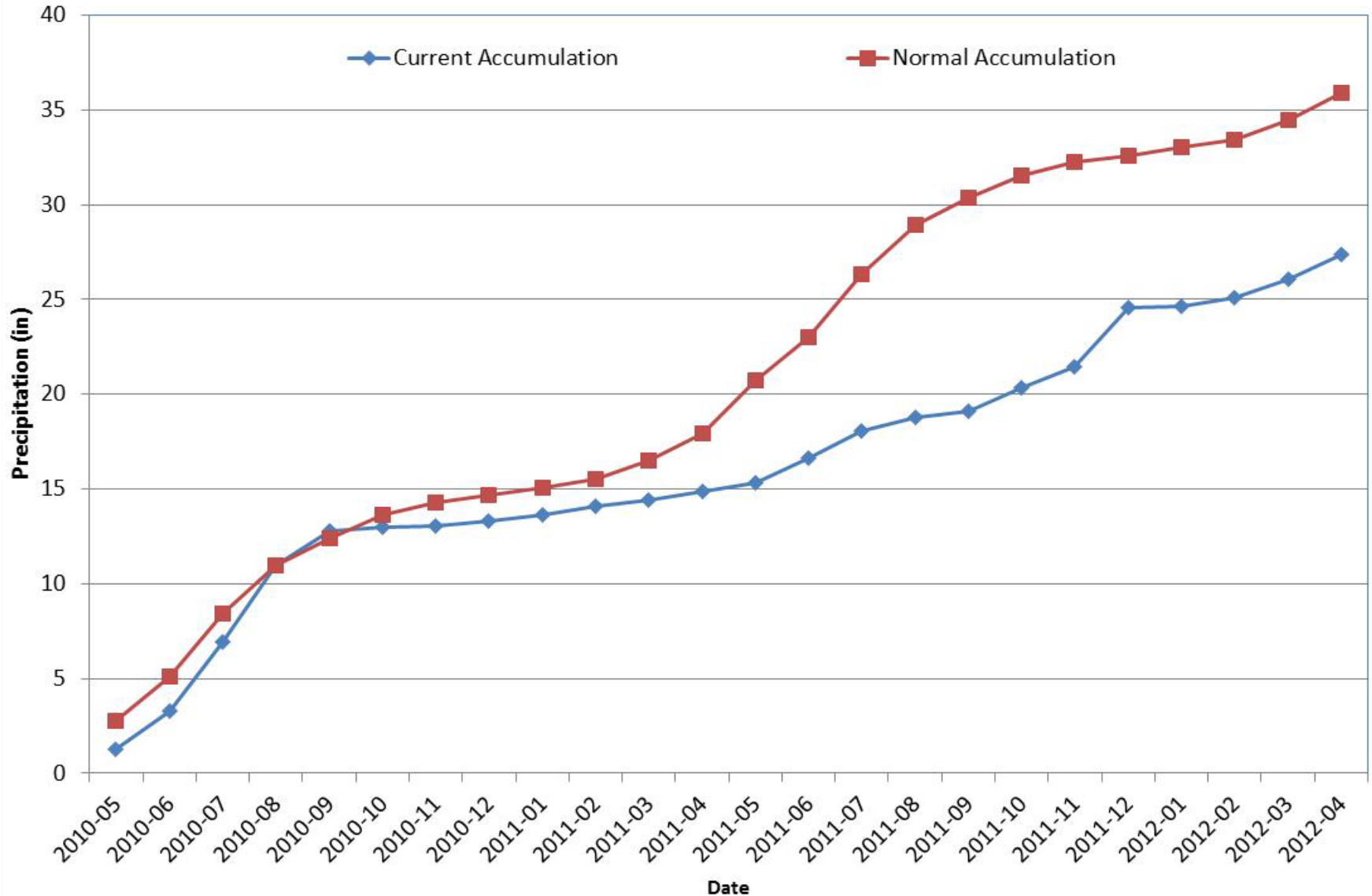
Division 6 - Walsh

Walsh 2012 Water Year



Division 6 - Walsh

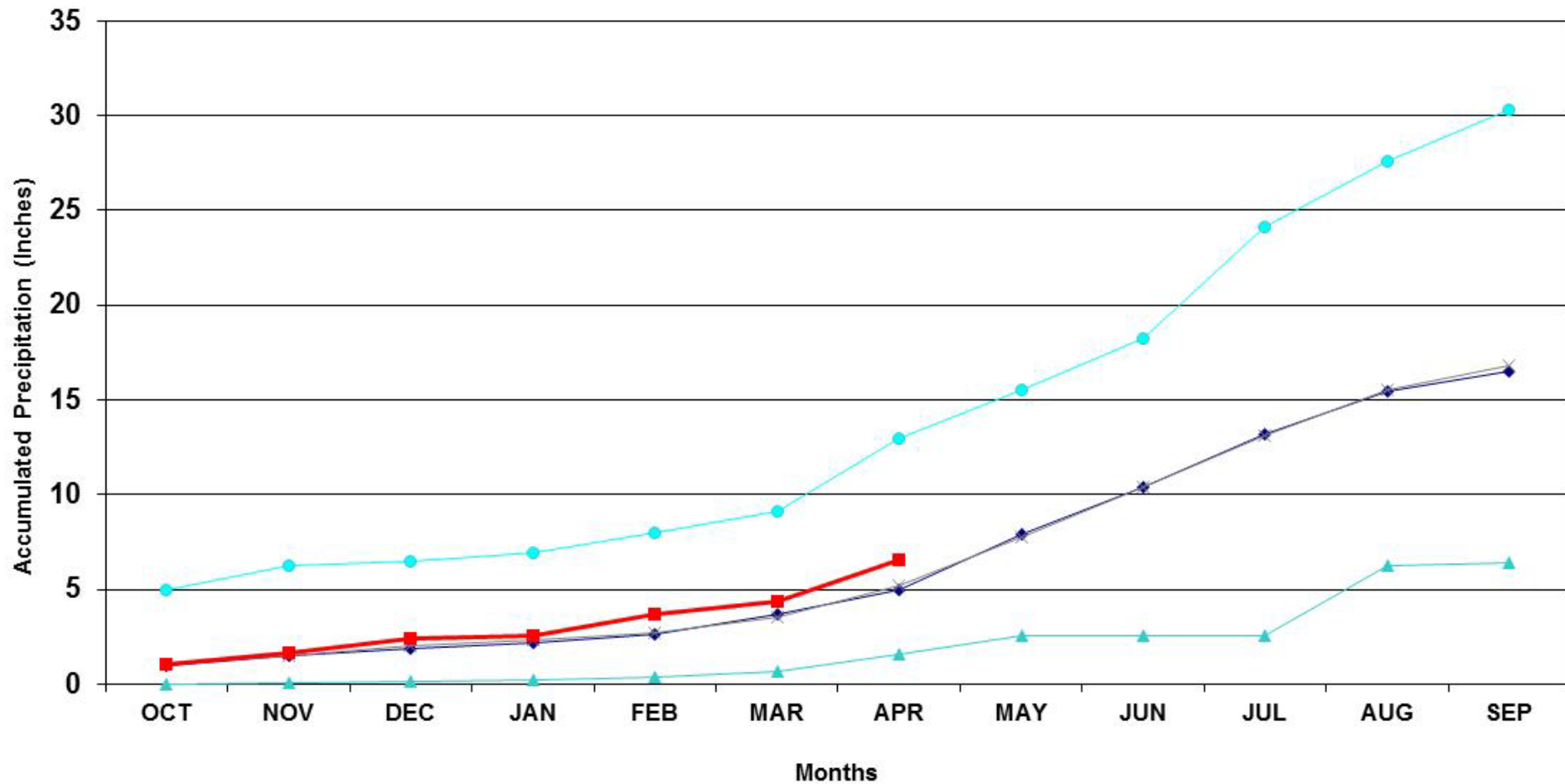
Walsh 1W 24 Month Precipitation Accumulation



Division 6 - Burlington

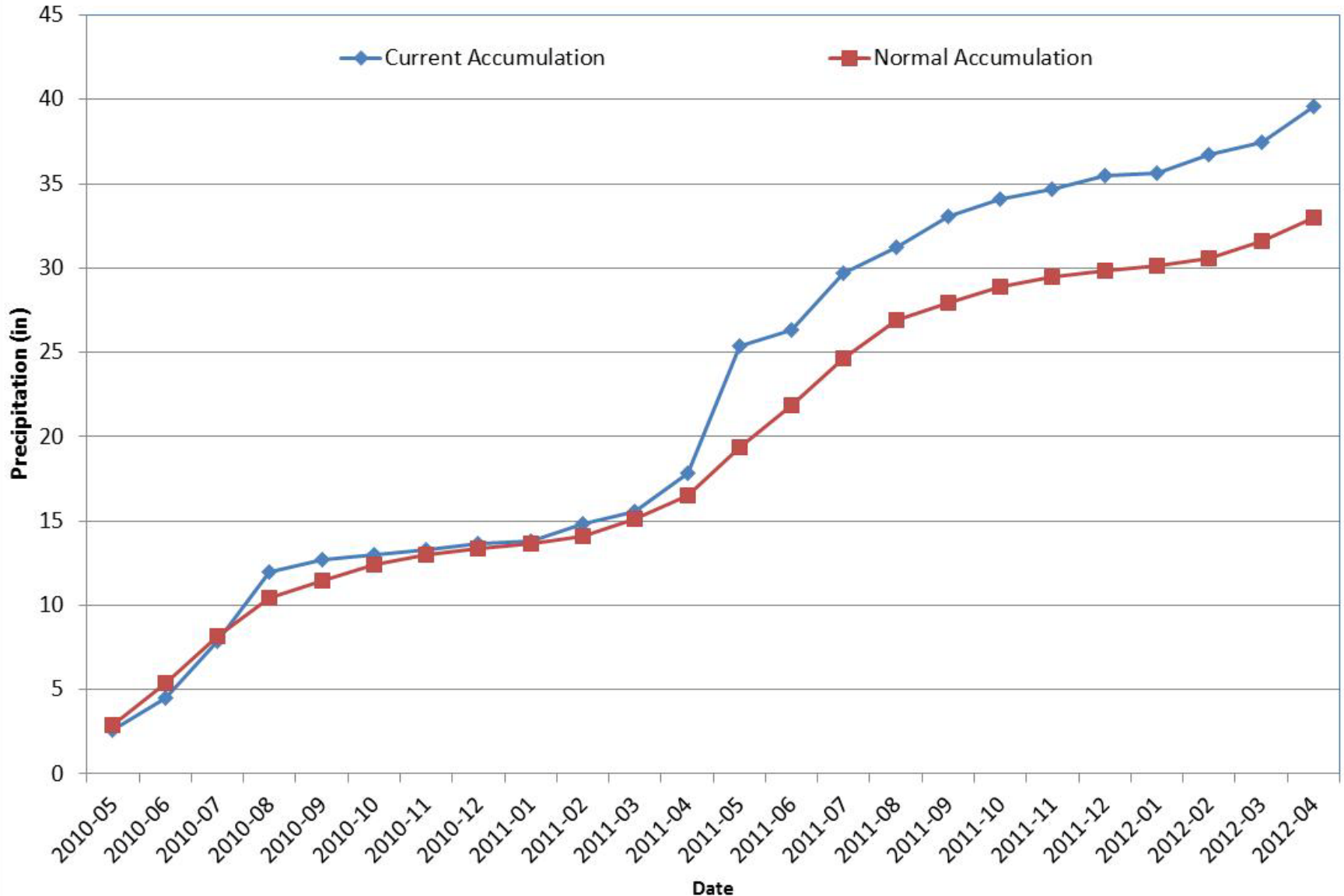
Burlington 2012 Water Year

◆ 30 Year Averages-1971-2000 ✕ Period of Record Average - 1892-2009 ■ 2012 Water Year ● Max Precip ▲ Min Precip



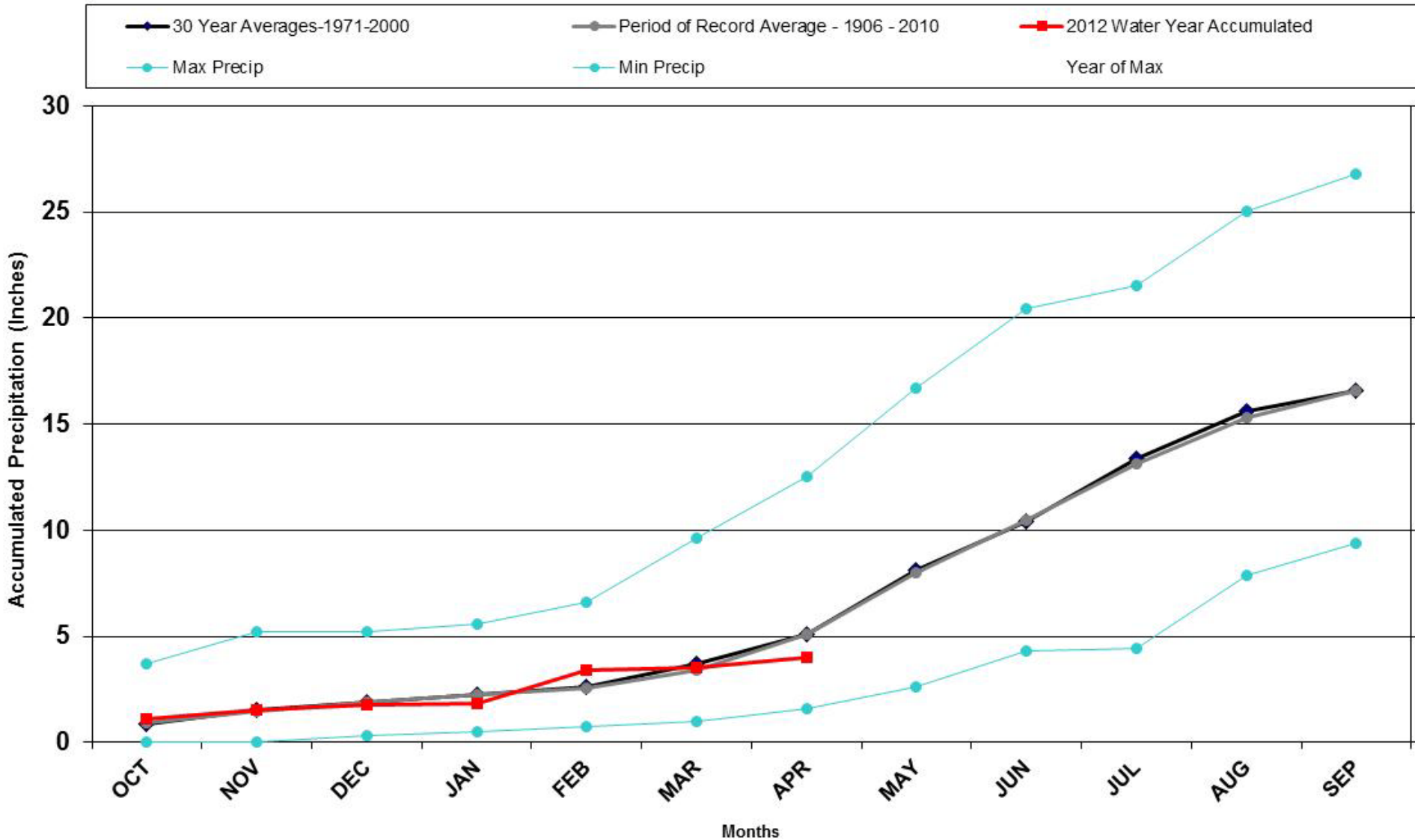
Division 6 - Burlington

Burlington, CO
24 Month Precipitation Accumulation



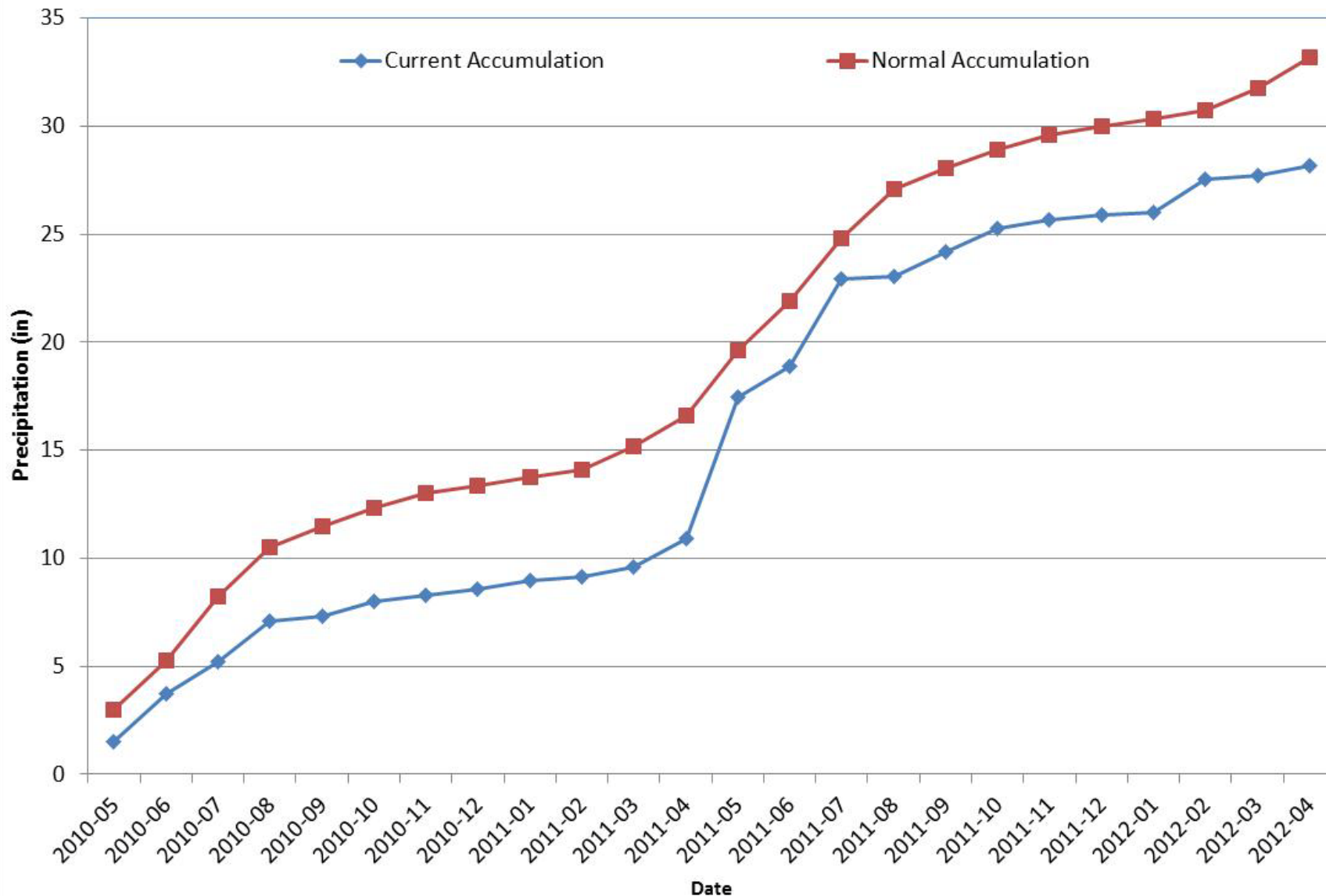
Division 7 – Akron

Akron 4E 2012 Water Year



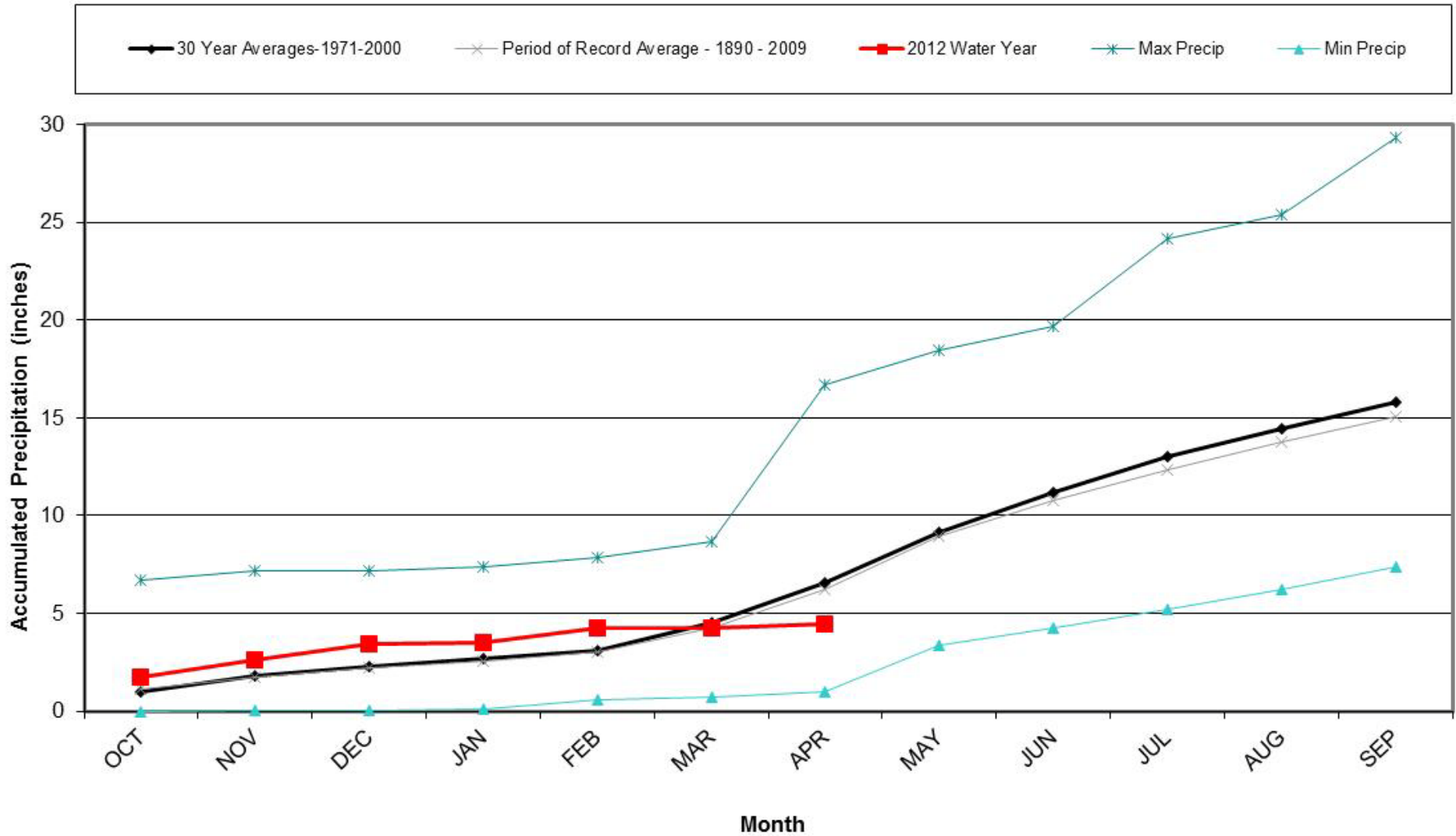
Division 7 – Akron

Akron 4E 24 Month Precipitation Accumulation



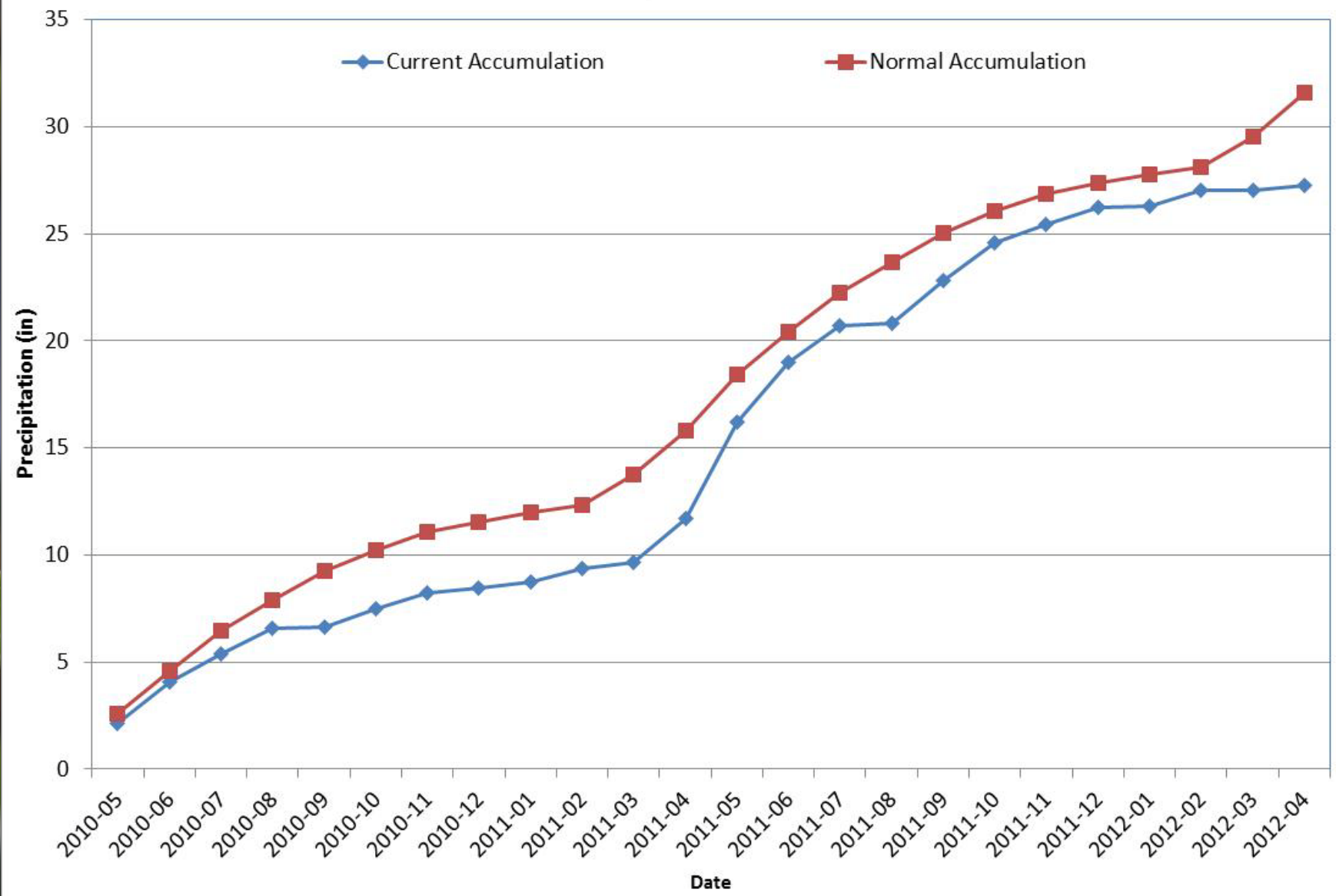
Division 8 – Fort Collins

Fort Collins 2012 Water Year



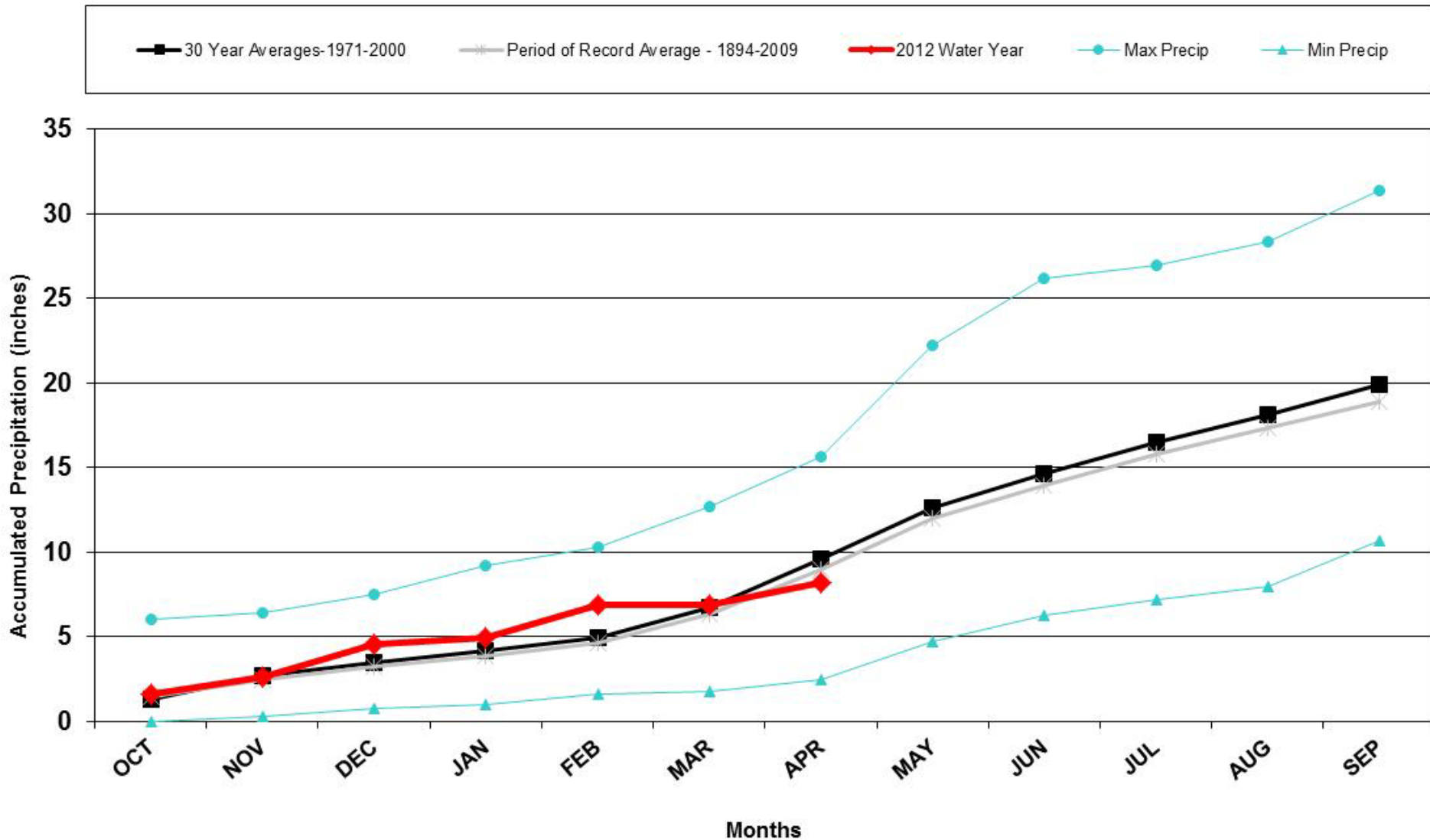
Division 8 – Fort Collins

Fort Collins 24 Month Precipitation Accumulation



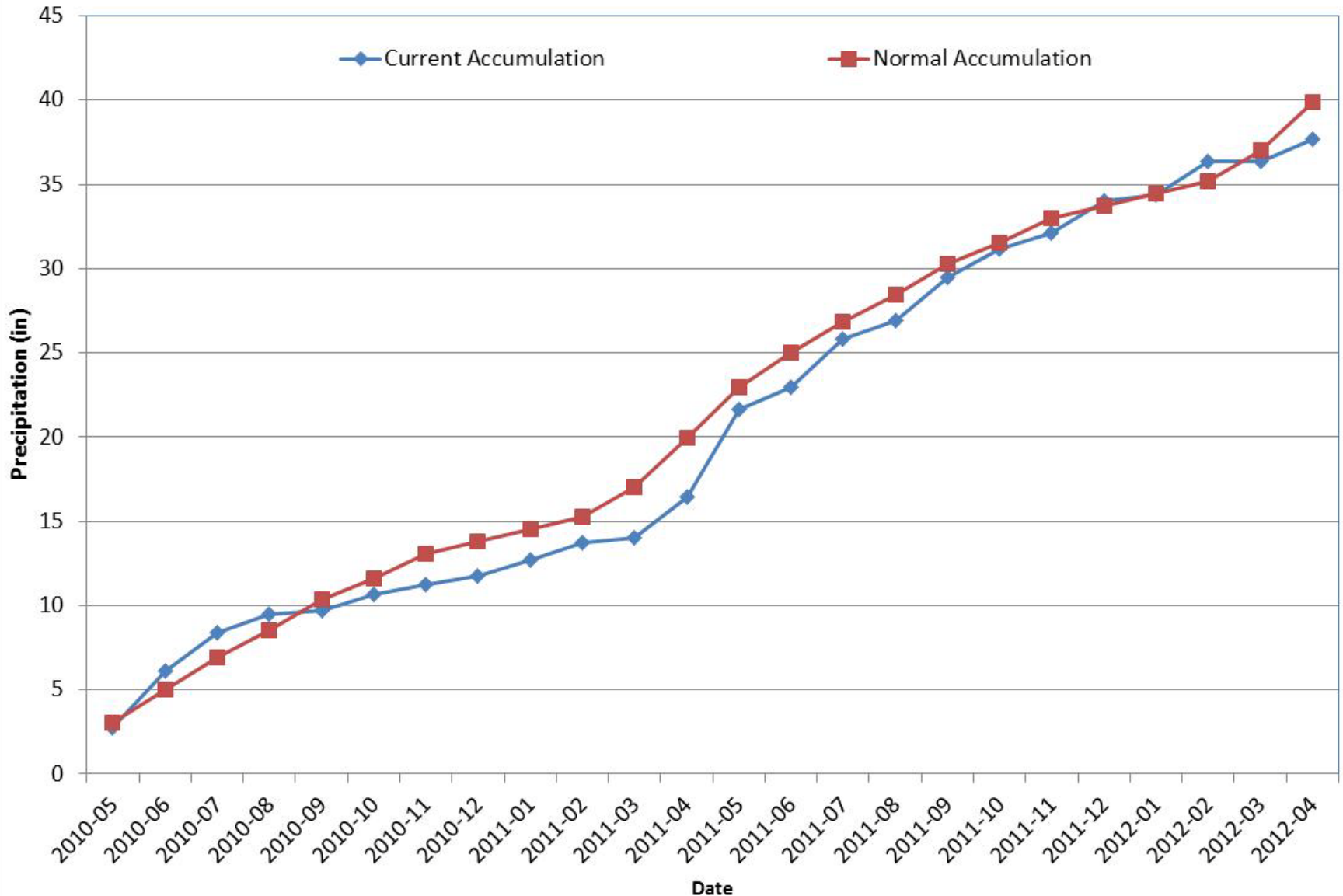
Division 8 - Boulder

Boulder 2012 Water Year



Division 8 - Boulder

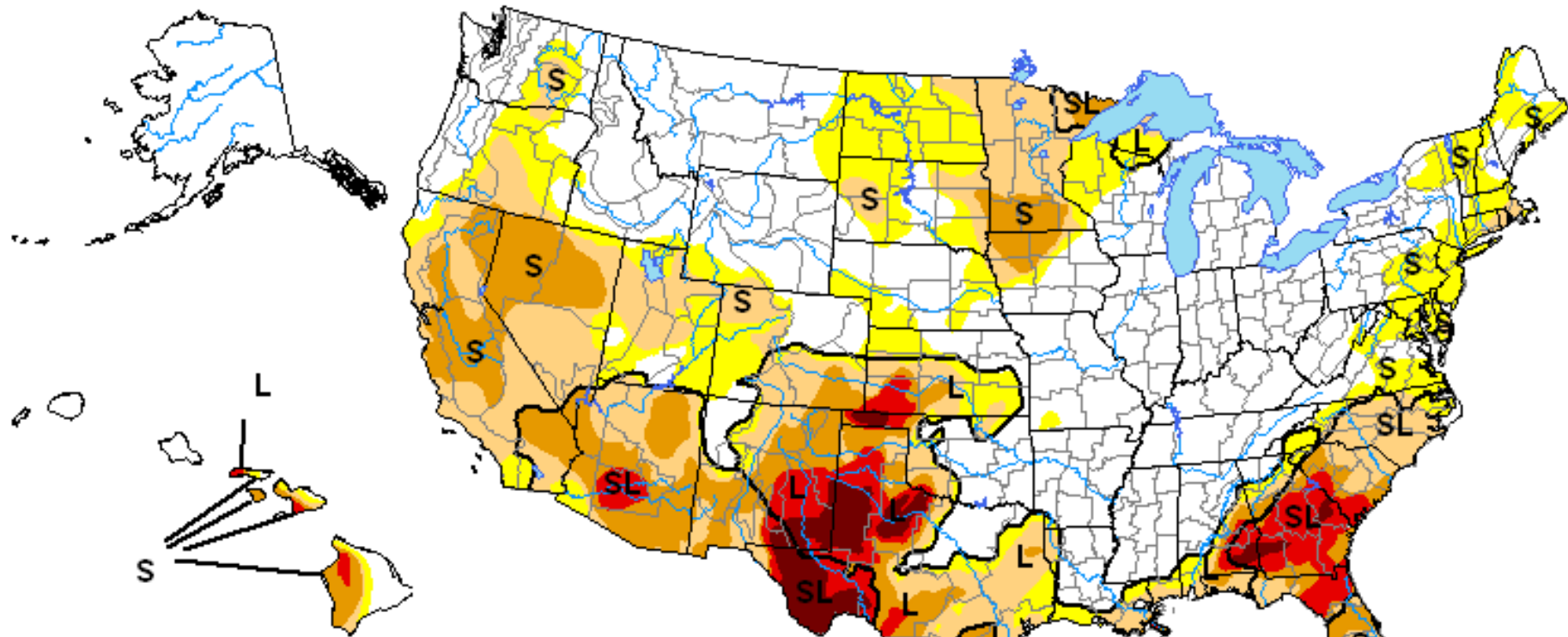
Boulder 24 Month Precipitation Accumulation








U.S. Drought Monitor

March 20, 2012


Valid 7 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- S = Short-Term, typically <6 months
(e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months
(e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying text summary
for forecast statements.

<http://droughtmonitor.unl.edu/>



Released Thursday, March 22, 2012

Author: Eric Luebehusen, U.S. Department of Agriculture

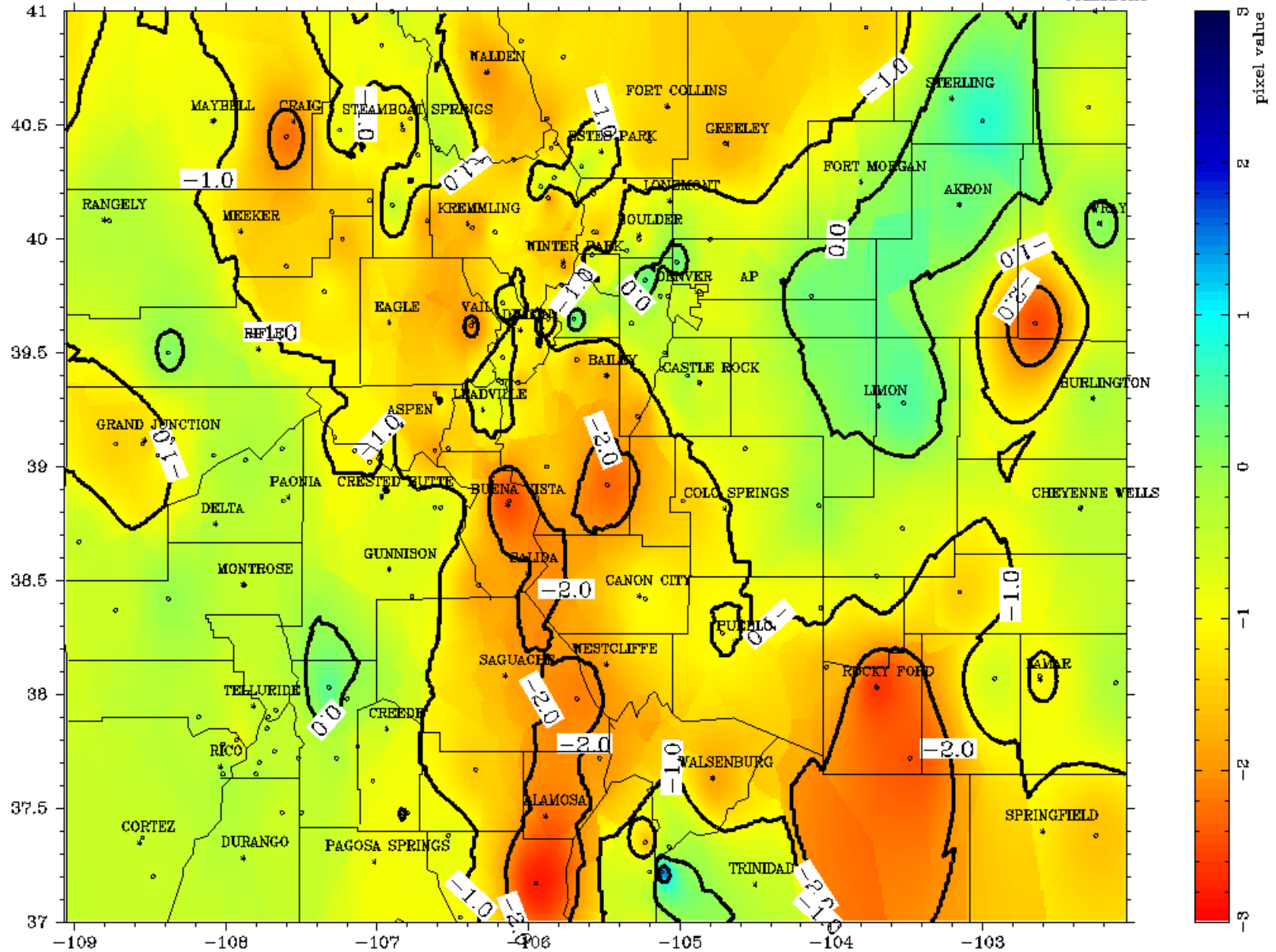
NEW USDM



Colorado

3/2012 3 mon. SPI

JULESBURG



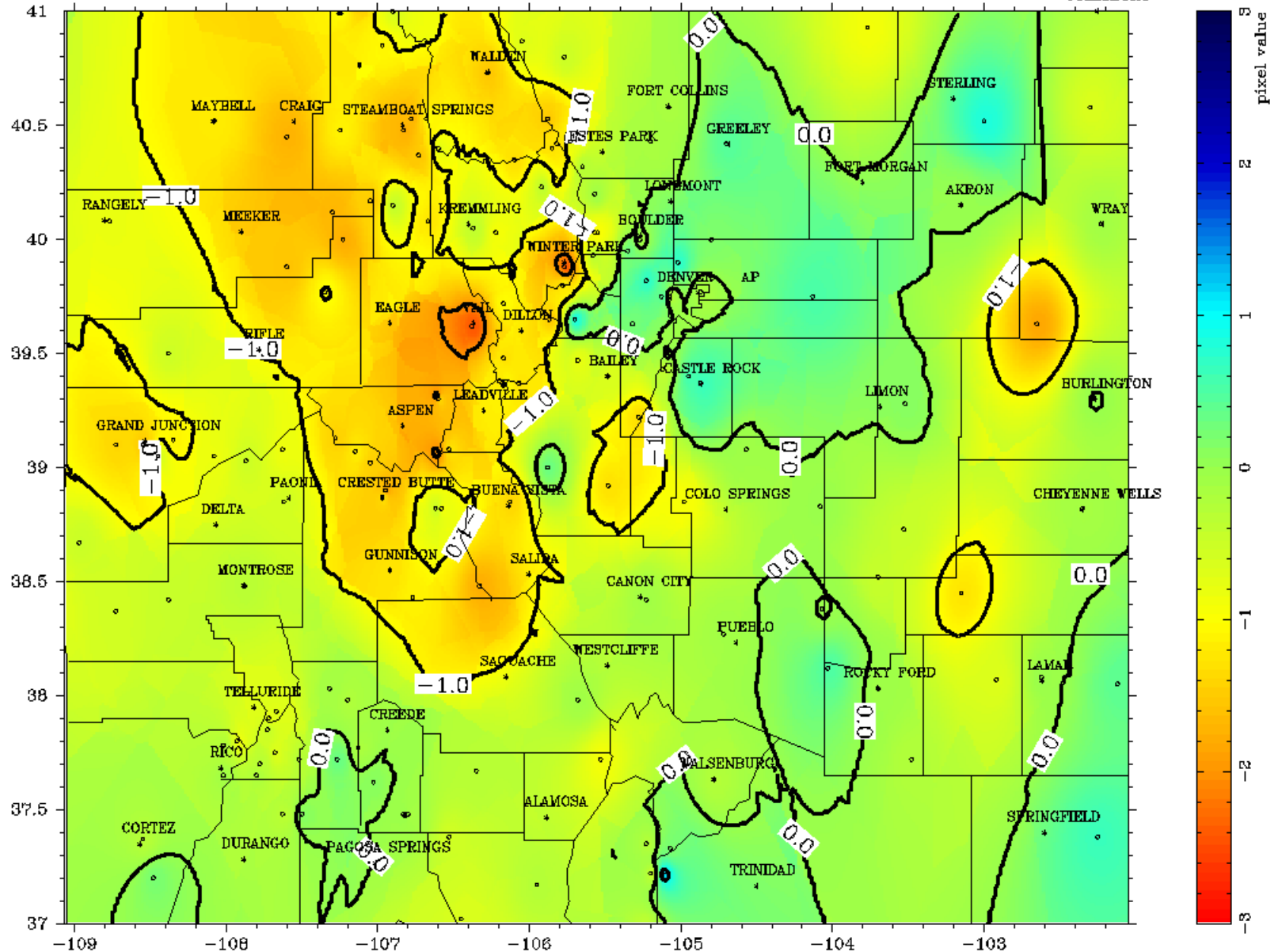
100 % < 2.0	44 % < -1.0
100 % < 1.0	7 % < -2.0
93 % < 0.0	0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

Colorado

3/2012 6 mon. SPI

JULESBURG



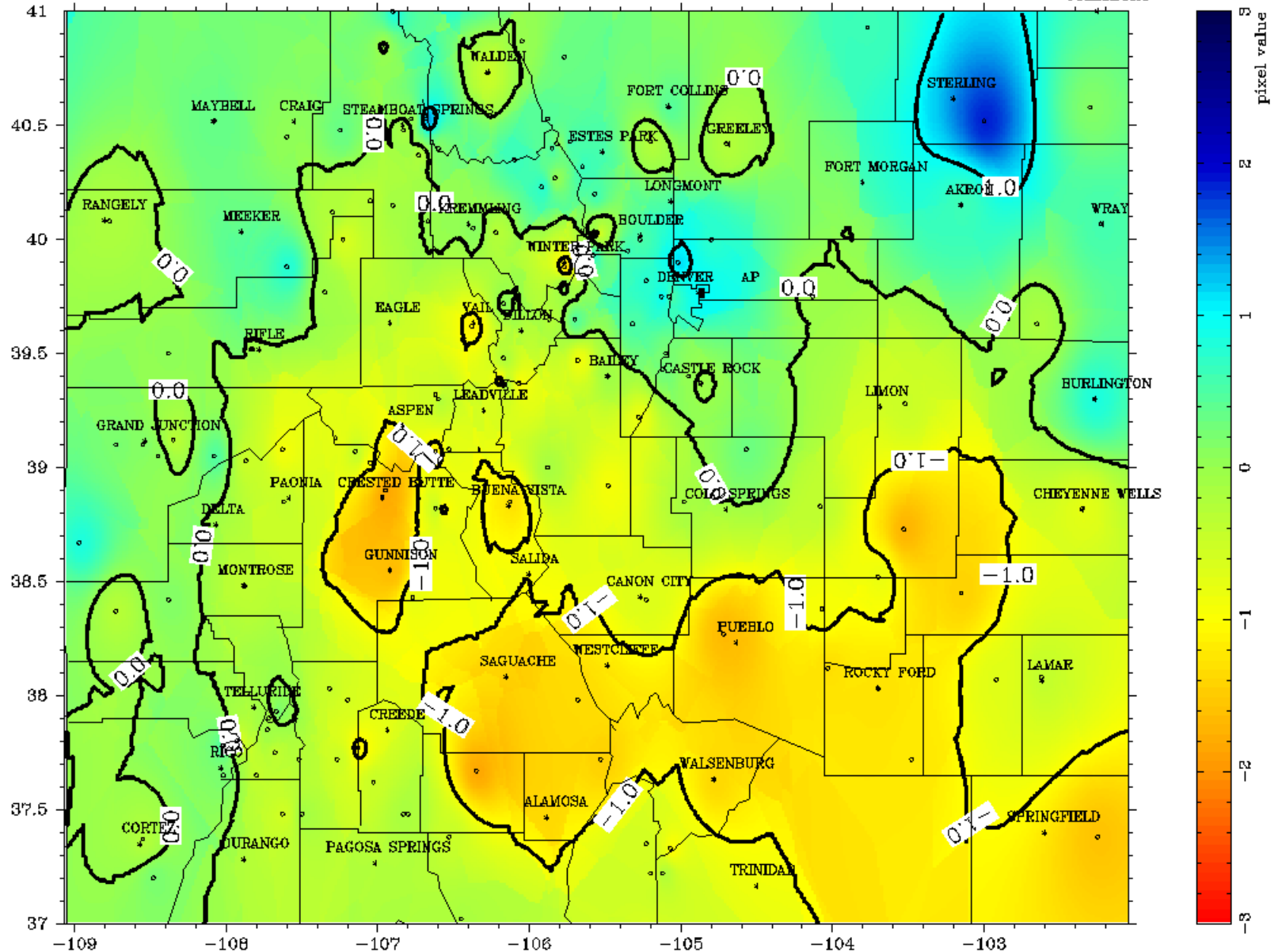
100 % < 2.0	22 % < -1.0
100 % < 1.0	0 % < -2.0
79 % < 0.0	0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

Colorado

3/2012 12 mon. SPI

JULESBURG



100 % < 2.0	19 % < -1.0
98 % < 1.0	0 % < -2.0
62 % < 0.0	0 % < -3.0

Produced by:
Colorado Climate Center
Fort Collins, CO

Colorado Climate Center

Data and Power Point Presentations available for downloading

<http://ccc.atmos.colostate.edu/droughtpresentations.php>



COLORADO
CLIMATE
CENTER

Colorado
State
University
Knowledge to Go Places